

AGRICULTURAL OUTLOOK

March 1990

• Economic Research Service
United States Department of Agriculture

Family Farms:
Finances on the Rebound

AGRICULTURAL OUTLOOK

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News of Farm Lenders, Irrigation Trends, Food Price Outlook

The new Administration proposal for the 1990 farm bill would give farmers much greater flexibility in what they may plant on commodity program acreage. The proposal would let farmers shift acreage among crops in response to market signals.

For an example of how the changes would work, take a farmer with 300 acres of corn base, with a 10-percent Acreage Reduction Program (ARP) requirement in effect. Under the flexibility proposal, the producer would set aside 30 ARP acres, as before, but then could plant the other 270 acres to any combination of program crops and oilseeds—instead of just to corn. And the farmer would still collect deficiency payments as if the acreage had been planted to corn.

The small size of the increase in winter wheat seedings for harvest this summer—only 3 percent—caught many analysts by surprise. Stronger prices, a lower ARP, and increased program flexibility were behind the upbeat expectations. To boost plantings, USDA announced last September that participating farmers could plant up to 105 percent of their wheat base, although for every acre planted over 95 percent, the area used to compute deficiency payments would drop by 1 acre.

Wheat farmers' reactions may have been muted for several reasons: they may have been reluctant to lose deficiency payments or acreage in fallow rotation, or they may have been constrained by the amount of wheat base they had idled under the Conservation Reserve Program. Dry weather, too, may have held down the size of the increase. Finally, producers may have learned about the 105-percent modification too late to alter their seeding plans.

Based on analysis of data from the 1987 Census of Agriculture, USDA has recently increased its estimates of



national farmland values. Average values in February 1989 now are estimated to have been \$667 an acre, higher than the earlier estimate of \$597. The revisions go back to 1984, and show that inflation-adjusted values bottomed out in 1987, instead of in 1988, and have increased more since the trough than earlier believed.

U.S. farmers continue to irrigate more land and may irrigate record areas in the early 1990's, if acreage idled by the ARP's continues to drop. About 12 percent of the year-to-year changes in annual ARP area show up as changes in irrigated area. With the easing of the rice, wheat, and cotton ARP's, and the continuing trend toward a higher proportion of crops being irrigated, irrigated area in 1990 likely will be about 1 million acres above 1989's estimated 50.4 million.

Farm lending institutions continued to rebound through mid-1989, albeit at a slower pace than in the past 2 years. The profit picture for the Farm Credit System and agricultural commercial banks brightened, and dud loans held by FmHA fell

for the first time in the 1980's. Commercial banks are gaining market share at the expense of the FCS and FmHA, as financial strength returns and excess supplies of credit develop.

Food prices in 1990 are expected to rise 3 to 5 percent. The forecast reflects the impact of the Christmas freeze in Florida and Texas on fruit and vegetables, as well as the effects of an expected drop in pork production. Nevertheless, ample supplies of most foods this year will help keep food price rises below 1989's 5.8-percent increase.

U.S. family farmers are emerging from the financial difficulties of the mid-1980's. While average household income for farm operators lagged behind that of all U.S. households during the early 1980's, the decade closed with farm households ahead of their nonfarm counterparts.

Recent USDA research shows that raising the ARP for feed grains from a theoretical 5 percent up to 40 percent would cut government outlays by \$4.7 billion and reduce net farm income by \$2.8 billion. The research indicates the hike would cut feed grain output only about 5 percent.

Research studies show that if current GATT negotiations led to totally free trade in the industrial market economies, worldwide meat production would not change significantly, since increases in some countries would offset declines in others.

In the U.S., meat output would expand in response to slightly higher prices caused by greater domestic and export demand. Beef output would rise in Australia, Brazil, and Argentina, while pork production would go up in South Korea and Taiwan. Farmers in Thailand and Brazil would raise and export more poultry. Less meat would be produced and more imported in Japan and the EC.

Flexibility Is The New Watchword

In the early and mid-1980's, U.S. crop stocks grew to unprecedented levels. Faced with problems of oversupply, Congress shaped the 1985 farm bill to support farm income with direct payments tied to restricting acreage planted.

Now, after several years of uneven global weather and rapidly changing market conditions, stocks of some crops are at historic lows relative to use. Operating in such a volatile environment, U.S. farmers would benefit from having more flexibility when they decide what and how much to plant.

In the new farm bill, the Administration is proposing to give farmers participating in the government commodity programs more freedom to choose what to grow, while at the same time preserving the federal safety net for farm incomes. Farmers would be better able to respond to market signals, cut costs, and follow more environmentally sound land management strategies.

Markets Would Govern Plantings

In order to take full advantage of the current programs' benefits, farmers often have strong incentives not to change their crop mixes.

For example, even though cash market returns to growing soybeans have been high relative to corn, farmers' responses have been muted, because switching to soybeans (a crop not covered by deficiency payments) would mean giving up corn base acres as well as deficiency payments. Under current law, those who did switch could not then switch those acres back into the corn program.

Under the Administration's proposal, each farm would be assigned a Normal Crop Acreage (NCA), defined as the sum



of the farm's acreage bases of program crops (wheat, feed grains, cotton, and rice) plus historic oilseed acreage (soybeans, sunflower, and rapeseed). Acreage Reduction Program requirements (ARP's), as a percent of the commodity-specific bases, would be set according to triggers designed to stabilize stocks relative to demand.

So, a farmer with 100 acres of corn base, 100 of wheat base, and 100 of the new oilseed base would first set aside 20 acres if the corn and wheat ARP's were each 10 percent. On the remaining 280 acres, the farmer could grow any program or oilseed crop and still collect deficiency payments as if the permitted base acres had been planted to wheat and corn. And, base history, which is used to calculate future eligibility for benefits, would be unaffected.

Moreover, any conserving-use crop, such as clover or alfalfa, also could be grown on program cropland without a loss of deficiency payments so long as it was not harvested. Farmers in addition could grow certain nonprogram alternative crops on base acres, but they would give up deficiency payments for those acres.

Producers would be able to grow and harvest the program crop, conserving crops, and industrial crops on the ARP acreage as well, but would forego deficiency payments on an acre-for-acre basis. These new features expand on the flexibility provisions offered as part of the 1990 wheat program.

How Proposed Flexibility Program Would Work

Sample farm:

100 acres wheat base
100 acres corn base
100 acres soybeans } 300 acres

ARP's In effect:
10% wheat
10% corn

Under current law:

10-acre wheat ARP	10-acre corn ARP	
90 acres of wheat base may only be planted to wheat	90 acres of corn base may only be planted to corn	100 soybean acres

Payments made on 90 acres wheat, 90 acres corn.

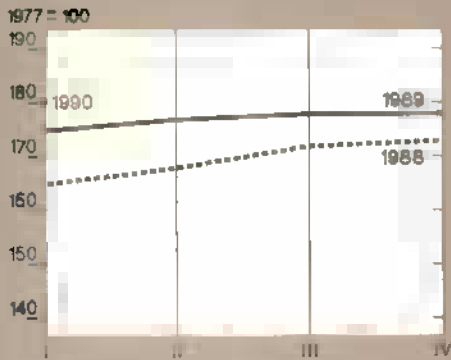
Under the Administration's flexibility proposal:

10-acre wheat ARP	10-acre corn ARP
After setting aside 10 acres each of wheat & corn base, farmer may plant 280 acres to any NCA crops	

Payments made AS IF farmer planted 90 acres each of wheat & corn.

Prime Indicators of the U.S. Agricultural Economy

Index of prices paid by farmers



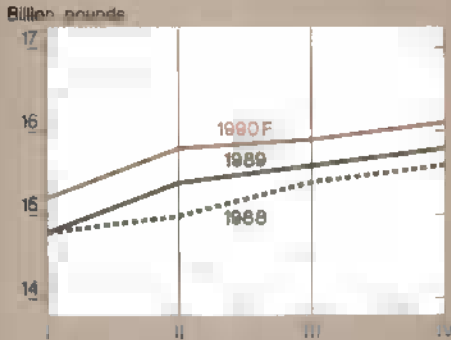
Index of prices received by farmers¹



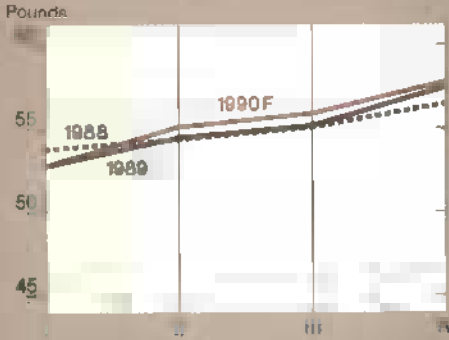
Ratio of prices received to prices paid



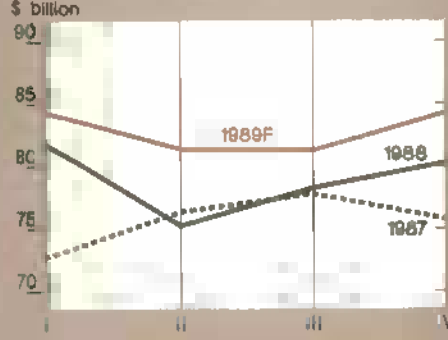
Red meat & poultry² production



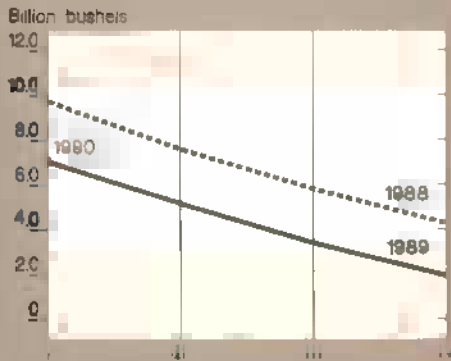
Red meat & poultry consumption, per capita^{2,3}



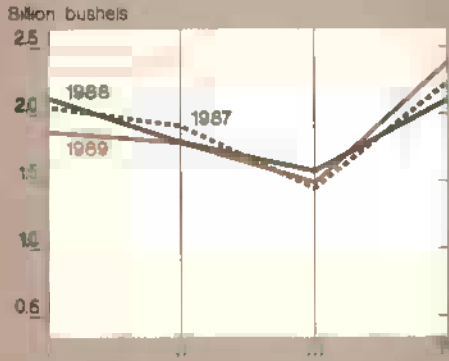
Cash receipts from livestock & products⁴



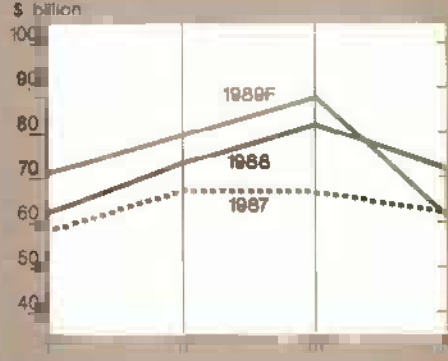
Corn beginning stocks⁵



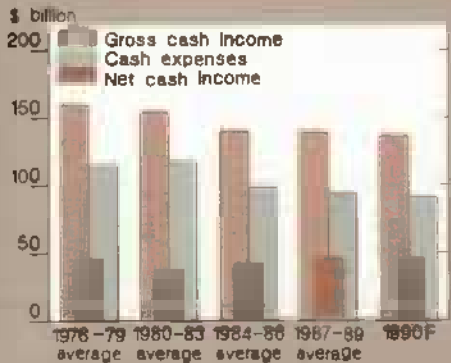
Corn disappearance⁵



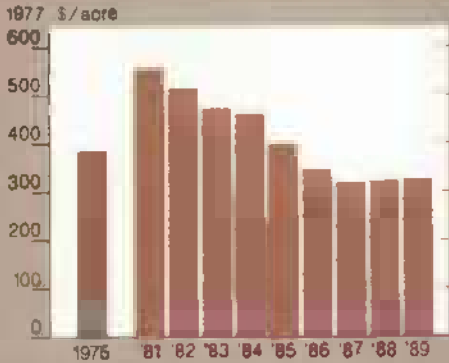
Cash receipts from crops⁴



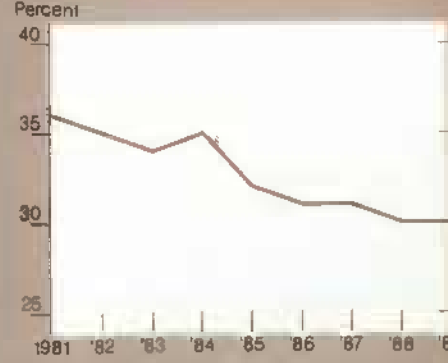
Real cash income⁵



Average real value of farm real estate



Farm value/retail food costs



¹For all farm products ²Calendar quarters Future quarters are forecasts for livestock, corn, and cash receipts
³Retail weight ⁴Seasonally adjusted annual rate ⁵I=Dec.-Feb.; II=Mar.-May; III=June-Aug; IV=Sept.-Nov.
⁶Cash expenses plus net cash income equals gross cash income F=forecast.

1990 Wheat Flexed a Bit

Farmers seeding winter wheat last fall were granted some planting flexibility, but not nearly as much as the Administration is proposing for the new farm bill.

In mid-September, the Secretary of Agriculture announced that participating farmers could plant up to 105 percent of their wheat base acres to boost 1990 supplies. But for every acre of wheat planted in excess of 95 percent of the base, the acreage used to compute deficiency payments would be cut by 1 acre.

Under the new proposal, the flexibility to plant up to 105 percent of base would be retained for the Secretary to offer if supplies were tight. But if wheat markets were tight, farmers could expand wheat plantings on base acres of, for example, corn without losing corn base or corn deficiency payments, or being pushed to plant on idled land.

The increased flexibility offered last fall for the winter wheat crop, coupled with strong prices and a lower ARP, did not boost plantings as much as analysts expected—planted area rose only 3 percent from a year earlier. Plantings in Kansas, the major winter-wheat state, showed no increase (see the Field Crops Overview).

Farmers may have been reluctant to lose deficiency payments or acreage in fallow rotation, or their plantable area may have been constrained by the amount of wheat base they had idled under the Conservation Reserve Program (see the Resources department). Much of the CRP land in Kansas is wheat base.

Dry soil conditions also may have limited the acreage increase in some areas. Finally, farmers may have learned about the program's modifications too late to alter their planting intentions.

In any case, the relatively small wheat response to the 105-percent offer should not be taken as an indication that farmers

would not respond more if the Administration's new proposal were adopted. The 105-percent provision is just a small part of the new flexibility. Corn farmers in Indiana this year could not plant wheat on corn base and still collect deficiency payments as they would be able to under the new proposal.

Challenges Ahead

Some farmers could face more challenges if the Administration's proposal were adopted. For example, some soybean farmers who lacked wheat, feed grain, rice, or cotton base might experience stiffer competition as more producers switched to soybeans in years when soybean prospects appeared especially bright. The competition would result because there is no target-price deficiency-payment mechanism for soybeans, and none is being proposed. But some traditional soybean growers might switch to other crops in relatively tight supply, and expect a reasonable return from them.

To preclude the return of burdensome stocks, the Administration's proposal would allow USDA to exclude any of the traditional program crops from the NCA and handle them individually with a crop-specific acreage reduction program.

The Administration's proposal will be one of many as the debate over the new farm bill moves into high gear. The final bill is months away, although some legislation is likely for the next crop year.

Still, there is widespread interest in providing farmers with a larger array of choices regarding the crops they grow. This would encourage better use of the nation's land, allowing farmers to specialize in what they grow best. U.S. farmers should then be more competitive in international markets. [Greg Gajewski (202) 786-3313 and Ed Allen (202) 786-1840] ■

Livestock, Dairy, & Poultry Overview

Greater U.S. beef and poultry meat exports are expected in 1990, but net pork imports may rise. The size of the U.S. cattle herd likely will be little changed and beef prices may remain strong. Lower slaughter numbers than in 1989 could give hog producers the highest net returns since 1987.

Expanded U.S. production of both turkeys and broilers will lower prices this year. Total U.S. egg production for 1990 is forecast up. Both international prices and export markets for nonfat dry milk are weaker because of growing EC export supplies. U.S. government purchases of nonfat dry milk under the support program have started up again.

Meat Exports To Rise

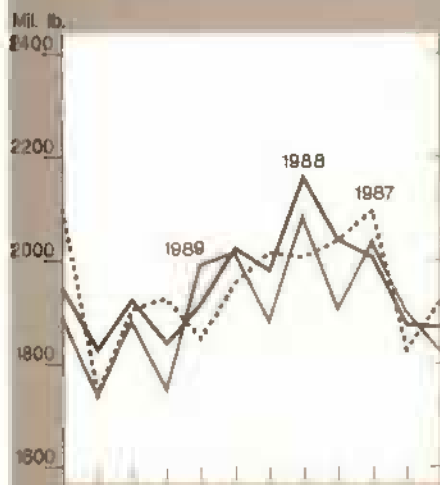
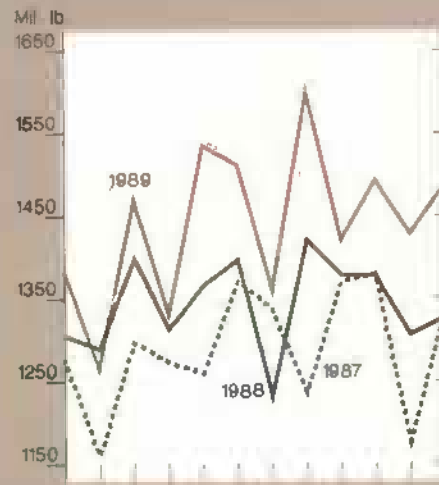
U.S. beef and poultry meat exports likely will increase 8 percent in 1990, while imports are expected to be essentially unchanged. Larger beef exports probably will partially offset a 2-percent increase in production, and help support beef prices.

Increased poultry exports will slow price declines that are probable because of rapidly growing supplies. Broiler exports are expected to remain strong, likely setting a record. Japanese and other Asian poultry markets are expanding, and new markets are opening up in the Soviet Union and Eastern Europe. An expected 8-percent increase in net imports of pork will not be a significant factor in the expected higher domestic pork prices.

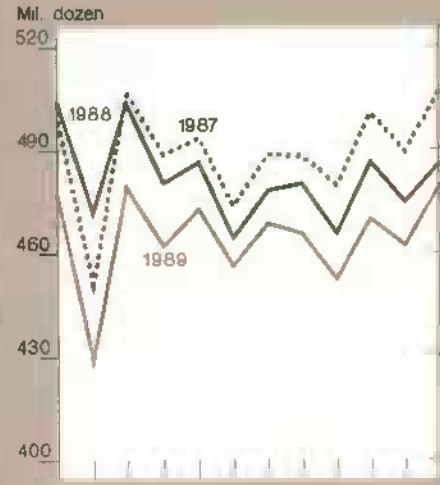
Large gains in high-quality beef exports to Japan will be responsible for most of the increased U.S. trade. U.S. beef imports are likely to fall because of reduced output in New Zealand—as pro-

Production of Livestock and Products

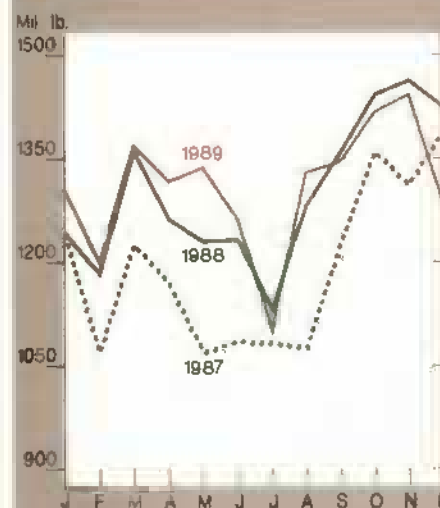
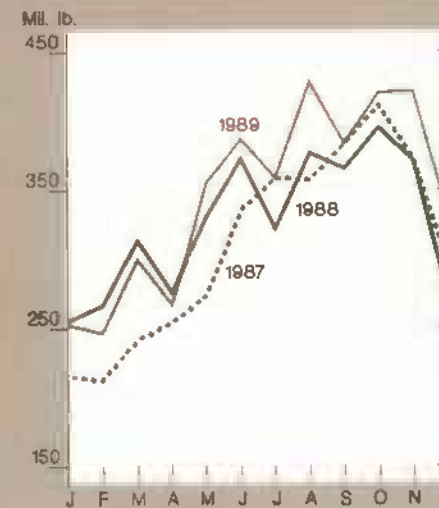
Commercial beef

Broilers¹

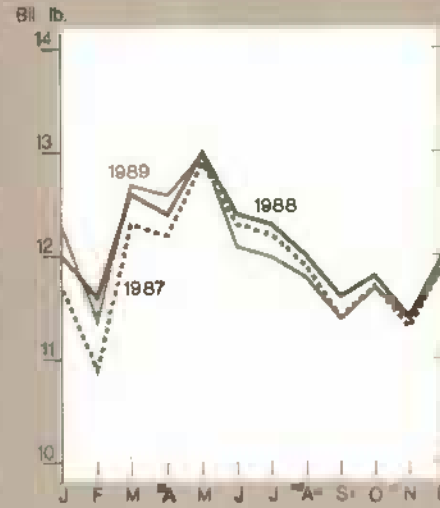
Eggs



Commercial pork

Turkeys¹

Milk



¹Federally inspected production, ready-to-cook.

ducers there recover from last year's drought—and because of greater competition from Japan for Australian exports.

Rising competition in the Japanese pork market from Taiwan and Denmark, coupled with less purchases by Mexico and higher domestic U.S. hog prices, should lower U.S. pork exports slightly.

Beef Cattle Herd Little Changed

The cattle inventory in early January showed only a very slight increase in the beef herd. Positive cow-calf returns above cash expenses since 1986 have partially overridden the impact of drought in many areas from 1988 through early 1990.

Cattle and calf numbers were up 0.2 percent to 99.3 million head. The number of beef cows and heifers that had calved

gained 1 percent, the second year of lackluster expansion. However, the number of heifers being retained for possible beef cow replacement remained in the 5.2-5.6 million range which has persisted since 1985.

The supply of feeder cattle outside feedlots was down 1 percent from a year earlier. Yearlings were up 6 percent, while calves were down 5 percent. The 1989 calf crop was about 1 percent smaller than a year earlier, but greater feeder

steer imports from Mexico will help maintain supplies in 1990.

Relatively high fourth-quarter placements of cattle on feed in 1989 more than offset lower second- and third-quarter placements. Much of the early movement into feedlots last fall was due to dry conditions in the winter wheat areas and a lack of forage in the Great Plains; similar problems had caused record first-quarter placements in 1989. Dry weather this January and poor grazing prospects resulted in continued large placements in the 7 monthly reporting states. Consequently, feedlot placements later this quarter may be well below the large year-earlier levels.

Fed cattle marketings likely will remain below a year earlier until late winter because of lower feedlot placements last summer. Marketings in the 7 states in January were down 3 percent from a year before. However, the large placements during last fall likely are being marketed late this winter, probably resulting in higher marketings through early summer.

Even with reduced placements expected this winter, marketings may decline seasonally, but they will remain above 1989 through fall 1990. Nonfed slaughter increased last fall because of drought, but probably will decline in 1990 if weather is normal.

Feeder cattle prices will remain in the mid-\$80's per cwt for yearling steers in the first quarter as supplies outside of feedlots remain adequate. Fed cattle prices at Omaha may continue in the upper \$70's per cwt through late winter, but drop to the low-to-middle \$70's in the spring as fed marketings increase from a year earlier.

Wholesale prices are expected to follow slaughter cattle prices. Boxed beef cutout prices for 550-700 pound Choice carcasses may remain in the low \$120's per cwt. The Choice beef retail price set a record high of \$2.74 per pound in

December, typically a month of low beef demand. The retail price for Choice beef will continue strong through the first quarter of 1990 despite beef price features in February, the national meat month.

Hog Returns Highest Since '87

This spring, hog producers could see the strongest market and receive the highest net returns since 1987. Returns have been on the upswing since last summer, and could rise further during the second quarter as hog prices approach their seasonal peak.

Barrow and gilt prices may reach the middle to upper \$50's per cwt before the end of June, the highest in nearly 3 years. So far, prices in the first quarter have mostly been in the high \$40's.

A relatively low rate of hog slaughter this spring is expected to support prices. Based on the size of last fall's pig crop, second-quarter slaughter could be down 7 percent from a year earlier, the smallest for the spring quarter since 1987. Most hogs reach market weight at 5-7 months, so pigs farrowed in the fall usually supply the bulk of second-quarter marketings.

The reduced supply of market hogs this spring could create difficulties for the packing industry. Last year, while hog producers were paring herds, pork packers were expanding their slaughter capacity.

This situation caused the spread between hog prices and fresh pork prices to narrow during 1989, and packer margins likely will narrow further through the first half of 1990.

More Output Cuts Poultry Prices

Broiler production likely will increase about 7 percent in 1990. First-quarter output is estimated to grow 8 percent, compared with only 3 percent in first-

quarter 1989. A bigger hatchery supply flock indicates that producers will continue to expand through the rest of 1990.

As a result, wholesale and retail prices will decline considerably in 1990. The 12-city wholesale composite broiler price is forecast to average 49-53 cents per pound for the first quarter, down from 59.4 last year.

The annual broiler price is expected to average 49-55 cents, compared with 59 cents last year. First-quarter 1990 retail prices probably will run about 7 percent lower than in 1989.

Turkey production may climb 18 percent during the first quarter over a year earlier, followed by 8-9 percent growth in the second quarter. Poult placements in December were up 6 percent from a year before. This is the smallest increase in recent months, and likely shows that producers expect softer prices. Overall, production for 1990 is forecast up 5-6 percent from 1989.

Wholesale turkey prices have dropped since December and producer returns are currently below break-even. However, lower feed costs this year have compensated for some of the price weakness.

With large output coming, Eastern region hen prices during the first quarter are forecast to be 51-55 cents per pound, compared with 62.4 a year earlier. Retail prices also are expected to remain lower than a year ago. Per capita turkey consumption may increase to around 17.5 pounds in 1990, up from 16.9 in 1989.

Egg Output Greater

Total egg production in 1990 is projected to gain about 2 percent, in contrast to a 3-percent drop in 1989. The largest increases likely will occur during the second half, as producers expand in response to 1989's strong net returns. Egg output during the first quarter is expected to gain by about 1 percent, compared with a 6-percent drop in first-quarter 1989.

The New York wholesale price for large eggs averaged 92 cents per dozen in January, down from \$1.00 last December, but well above the 72 cents of a year earlier. However, prices had slipped to the high 70's range by mid-February. They are expected to average 70-76 cents for the year, compared with 82 last year.

World Nonfat Dry Milk Prices Weaken

International prices of nonfat dry milk in mid-February were \$1,720 per metric ton, down about \$200 from the second half of 1989 and essentially below the U.S. support price.

International prices slipped because of growing EC export supplies. EC consumers are using less dairy products, leaving more butter and nonfat dry milk available for export. Also, whey products increasingly have been substituted for nonfat dry milk in EC veal rations.

If EC domestic use remains weak, the EC probably will have to choose between allowing intervention stocks to grow or increasing export subsidies. Larger export subsidies would push international prices well below U.S. prices, while current EC subsidies probably would generate prices near current U.S. levels.

Softer international prices for nonfat dry milk now seem likely to persist. Small changes in EC conditions can substantially affect international price, because their domestic market is much larger than the international market.

If international prices do not recover, U.S. commercial exports this year might be insignificant. In turn, the government would buy substantial amounts of nonfat dry milk and cheese, but less butter.

However, if international prices recover slightly, export demand for nonfat dry milk would keep U.S. markets tight for products made from either skim or whole milk. Wholesale prices of nonfat dry milk and cheese and farm milk prices probably would stay above support levels throughout the year.

U.S. commercial exports of nonfat dry milk slowed in early 1990, after being key in dairy markets for 2 years. But even if international prices recoup, exports will be much smaller than 1989's 350 million pounds. Nonfat dry milk producers are not likely to overcommit to the export market as they did in 1989. Powder exports in 1990 are not likely to exceed half the 1989 total.

In January, the U.S. government made small purchases of nonfat dry milk, the first price-support removals in 18 months. If purchases are significant for all three products, spring prices of manufacturing grade milk will be near the support prices of \$10.10 per cwt. By late spring, milk prices could fall more than \$1 from a year earlier and almost \$5 from the December peak.

For further information, contact: Ken Nelson and Mark Weimar, coordinators; Fred White, cattle; Kevin Bost, hogs; Lee Christensen and Larry Witucki, broilers, turkeys, and eggs; and Jim Miller, dairy. All are at (202) 786-1285. ■

Field Crops Overview

It appears that the U.S. corn situation is tighter than analysts had expected: 1989 output was less than thought and use was greater. And, the jump in winter wheat planted for harvest in 1990 was only about half of industry expectations. Plantings rose only 3 percent from a year earlier.

Unfavorable weather over much of the winter wheat area has raised concerns about the size of the crop. Futures prices have been extremely sensitive to daily and weekly weather reports.

Corn Crop Tighter

USDA estimates that 7,527 million bushels of corn were harvested last fall

(1989/90 crop year), down about 60 million from the December estimate. Nonetheless, the crop is more than 50 percent larger than the 1988/89 drought-reduced outturn.

At this time of year, a decline in the estimate is relatively unusual, and trade expectations were leaning toward an increase of about 80 million bushels. Apparently, the uneven weather last summer cut yields more than observers realized.

Compounding the tight supplies, the corn stocks report released in January indicated larger-than-expected disappearance in September-November. This prompted a 230-million-bushel increase in total use estimates for 1989/90, the bulk of which was placed in the feed and residual category.

Foreign coarse grain production is expected to be about the same as a year earlier. And, for the third consecutive year, consumption is exceeding production, so stocks are likely to fall again.

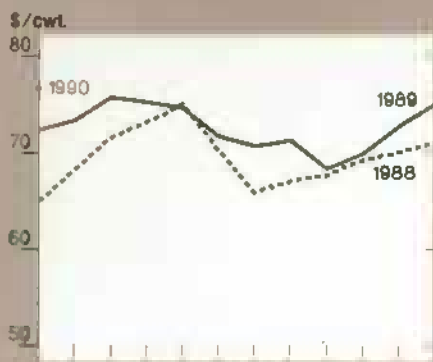
World coarse grain trade is proving to be larger than expected, in part because of tight wheat supplies and the high price of wheat relative to coarse grains. With foreign coarse grain exports expected to go up only slightly, most of the rise in demand will be met by larger U.S. exports.

The Australian barley crop just harvested is the largest in 4 years and will generate strong competition in the international barley markets during the next few months. However, the market still will be dominated by the EC, whose exports are forecast to set another record. U.S. barley exports are running above last year, bolstered by recent Export Enhancement Program sales to North African and Middle Eastern markets.

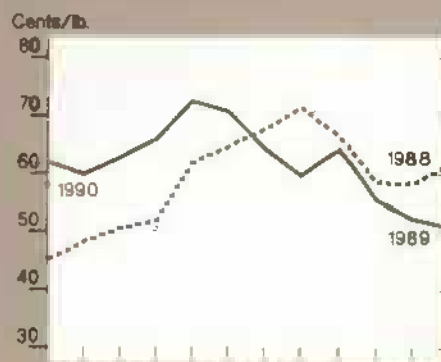
U.S. corn exports are forecast to rise 12 percent above last season, the highest since 1980/81 and the third largest ever. Higher demand is expected from Korea, Mexico, and Eastern Europe. Food aid

Commodity Market Prices

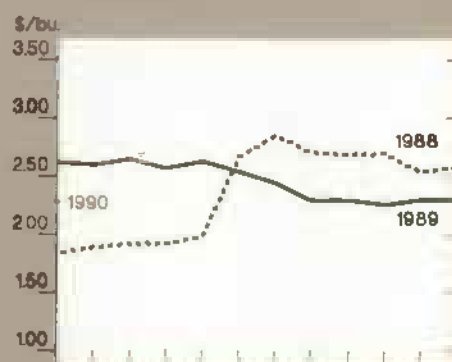
Choice steers, Omaha



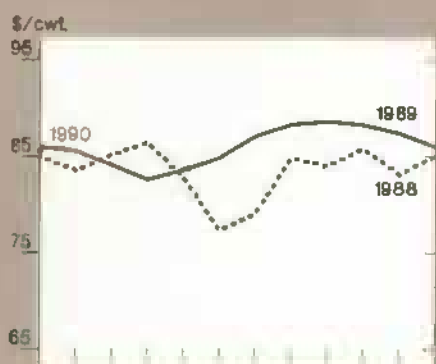
Broilers, 12-city average



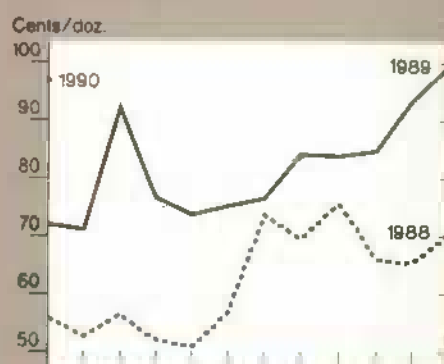
Corn, Chicago³



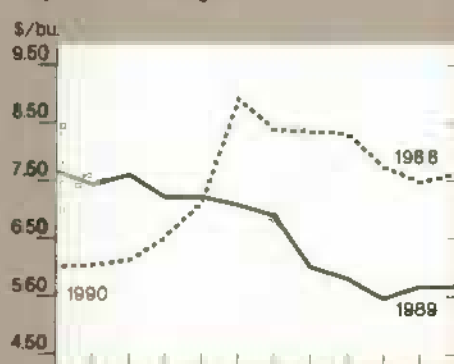
Feeder cattle, Kansas City¹



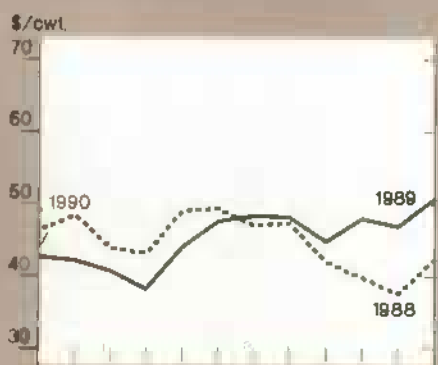
Eggs, New York²



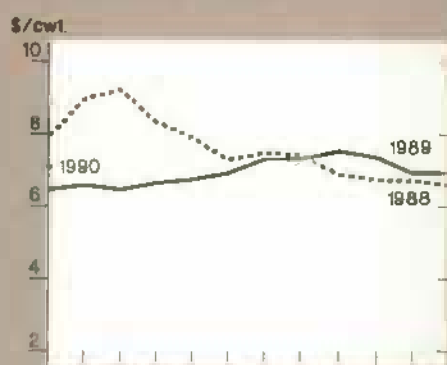
Soybeans, Chicago⁴



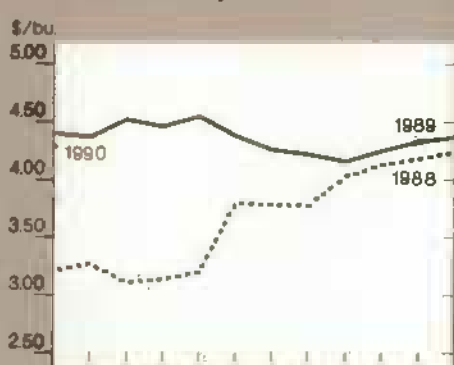
Barrows and gilts, 7 markets



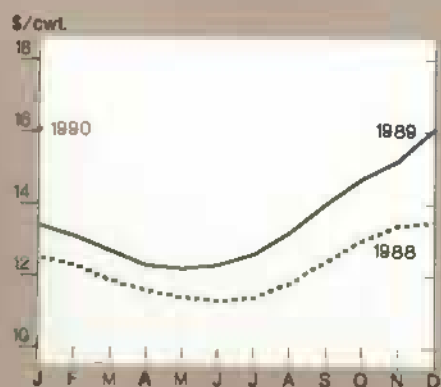
Rice (rough), SW Louisiana



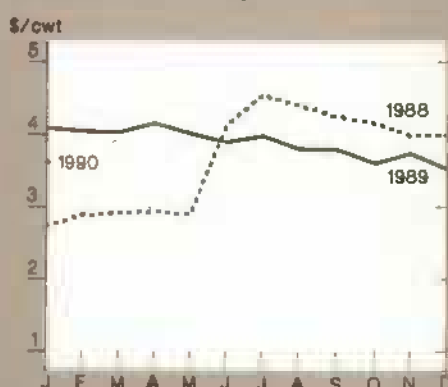
Wheat, Kansas City⁵



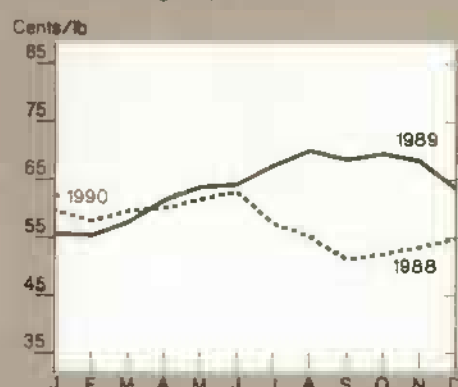
All milk



Sorghum, Kansas City



Cotton, average spot market



¹600-700 lbs. medium no. 2. ²Grade A large

³No. 2 yellow. ⁴No. 1 yellow. ⁵No. 1 HRW.

will boost both U.S. and EC exports to Eastern Europe.

Deliveries of the big Soviet corn purchases made last fall have been delayed somewhat; the USSR's rail system cannot move enough corn to keep up, and Soviet port congestion could continue with the arrival of recent large wheat purchases.

Winter Wheat Comes Up Short

U.S. winter wheat farmers have seeded only about 57 million acres for harvest in 1990. The lack of enthusiasm for planting additional land was not evenly distributed across the winter wheat belt. Kansas, the nation's largest producer, showed no area growth over a year earlier.

The Kansas acreage likely reflects recent diversions into the Conservation Reserve Program, farmers' reluctance to take advantage of the 105-percent provision in the modified wheat program offered last September, and some producers' decisions to continue to fallow some wheat area instead of planting it continuously. Dry weather also may have limited planting increases in places.

Texas reported a winter wheat area decline. However, Ohio and Illinois likely increased their planted areas this year.

The expanded wheat area in parts of the Midwest will have to come at the expense of other crops. It is too early to forecast the extent of this shift. However, more wheat probably will not mean less corn, because corn programs are attractive. The extra wheat may displace some soybeans and hay.

Weather worries continue across the winter wheat belt even though the weather improved in January; temperatures and precipitation were above average. Nonetheless, the earlier dry and cold weather stressed the crop on the Texas High Plains.

High temperatures in the fall reduced the protective snow cover, and left the crop susceptible to above-normal winterkill and other freeze damage. These conditions existed throughout the central and northern Great Plains, with the exception of Montana.

In addition, much of the belt has had below-normal precipitation. Across the hard red winter wheat areas of the central and southern Plains, precipitation has been so slight that the October-December period ranks as the sixth driest since the late 1800's. Last November was the driest on record in Kansas.

Foreign wheat production is record high. China's grain output reached a record 407 million tons; wheat and rice accounted for most of the increase. Soviet production is also up. Despite higher production, the Soviet Union is forecast to import 14 million tons, 2 million higher than earlier expectations.

The large foreign crop is likely to lead to stiffer export competition in the second half of 1989/90. The 1989/90 Australian and Argentine crops are now available for export, and the pace of Canadian exports is expected to pick up in the next few months. These developments, together with tight stocks, may lead to a 6-percent drop in U.S. wheat exports.

Rice ARP Cut

Domestic rice production for 1989/90 is forecast to be 154.5 million cwt, around 5 million cwt below the 1988/89 outturn. Favorable conditions have boosted crop yields to 5,749 pounds per acre—partially offsetting the 200,000-acre drop in both the planted and the harvested area estimates.

Because of the slightly smaller crop, imports are forecast up from 4.2 million cwt in 1988/89 to 5.0 million this year. However, beginning stocks are at a low 26.7 million cwt, bringing total supplies for 1989/90 to 186 million, about the same as 1987/88 and about 5 percent below last year.

In recent months, the forecast of rice ending stocks for 1989/90 has fallen from

almost 24 million cwt to 19 million. This reduction was based on both lower estimated U.S. production (falling 2 million cwt) and increased forecast use (exports rising almost 3 million cwt). The export estimate was boosted because of heavy trading activity.

Reflecting expectations of diminishing stocks, the Secretary of Agriculture in late January announced that the 1990 ARP for rice would be 20 percent. This is down from the 22.5 percent that had been announced earlier in the month.

Soybean Crop To Flood World Market

U.S. soybean prices have fallen as South American production prospects have continued to be bright. The U.S. market is characterized by strong domestic demand for soybean meal and oil and weaker export prospects for both.

Low U.S. soybean meal prices, combined with profitable livestock feeding, have boosted meal use in recent months. U.S. soybean oil prices are competitive in the domestic market, and soybean oil is now recapturing domestic market share lost to competing oils.

World soybean production is climbing substantially in 1989/90 as U.S. and Argentine production rebounds from drought conditions. Record South American production is expected for the third consecutive year.

World demand is up as well, raising trade. But, expected gains in U.S. exports are being restrained by South American competition. U.S. soybean exports are forecast up about 12 percent, but exports of meal and oil are expected to be off by 9 and 13 percent. Improved EC crush margins led the EC to favor bean imports over meal this season.

U.S. Grain and Oilseed Production Rebounds After Last Year's Drought

	1987/88	1988/89	1989/90
Million metric tons			
WORLD			
Wheat			
Production	502	501	536
Use	531	531	538
Exports	105	97	98
Ending stocks	147	118	116
Corn			
Production	448	399	460
Use	463	457	476
Exports	57	64	71
Ending stocks	146	87	72
Soybeans			
Production	104	95	107
Use	103	97	104
Exports	30	23	26
Ending stocks	20	18	20
UNITED STATES			
Wheat			
Production	57	49	55
Use	30	27	28
Exports	43	39	35
Ending stocks	34	19	12
Corn			
Production	181	125	191
Use	153	133	145
Exports	44	52	58
Ending stocks	108	49	38
Soybeans			
Production	53	42	52
Use	35	31	32
Exports	22	14	16
Ending stocks	8	5	9

Note: Exports of wheat and corn do not include intra-EC trade shipments.

Cotton Market Tightening

Already low, the world stocks-to-use ratio for cotton is expected to fall by the end of 1989/90 to the lowest since World War II. Both foreign output and U.S. production are off, but demand continues to be vigorous.

This year's lower output in China and the Soviet Union, coupled with the rapidly growing textile industry in Pakistan, accounts for the decline in both stocks and exports. With less competition from these major exporters, the U.S. will see both exports and export market share significantly higher in 1989/90.

Because of the tight supplies, production is likely to expand sharply in 1990/91, particularly in the Northern Hemisphere. U.S. area likely will jump because the ARP requirement was cut from 25 to 12.5 percent.

China and Mexico also plan to enlarge area in 1990/91. The Soviet Union and Pakistan probably will boost yields again. But, tougher export competition probably will develop, driving the U.S. export share closer to recent historic levels in 1990/91. [Jim Cole (202) 786-1840 and Carolyn Whitton (202) 786-1826]

For further information, contact: Sara Schwartz, world food grains; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Pete Riley, world feed grains; Larry Van Meir and Allen Baker, domestic feed grains; Roger Hoskin, domestic oilseeds; Carolyn Whitton, world cotton; Bob Skinner and Scott Sanford, domestic cotton; Jim Schaub, domestic peanuts. World information, (202) 786-1824; domestic, (202) 786-1840. ■

Specialty Crops Overview

The December freeze cut Florida's 1989/90 orange output by 23 percent. Retail prices of fresh oranges, mainly produced in California, are not expected to surge, but wholesale prices of concentrate have already moved up 60 percent since December. The grapefruit crop was also damaged—f.o.b. prices for fresh grapefruit rose 28 percent in January.

Fresh tomatoes, sweet corn, and ornamental crops were seriously damaged by the cold, and prices shot up in January and February. While vegetable shipments are returning to normal now, the impact on the ornamental market will ripple through the Easter season.

The freeze and the unexpectedly strong effect of dry weather last summer and fall pushed sugar production down and prompted an increase in the sugar import quota in January. With the larger quota, domestic prices are expected to slip.

Freeze Wreaks Havoc on Florida

The freeze that hit Florida, Louisiana, and the lower Rio Grande Valley in Texas on December 24 and 25 was comparable in intensity and duration to the tree-killing freeze of December 1983.

The heaviest production losses occurred in Florida, where harvest of the \$1.8-billion citrus crop had just moved into high gear. Florida's orange output for the 1989/90 marketing year probably will be down 23 percent because of the freeze, and juice yield estimates were cut from 1.48 gallons per box to 1.29 (frozen concentrate basis). Nearly 95 percent of Florida's orange output is used for processing, primarily for frozen concentrated orange juice (FCOJ).

The freeze likely cut Texas orange output by 37 percent. But, Texas accounted for less than 1 percent of 1988/89 orange production, so the loss will have only a small effect on total supply.

Despite the losses, retail prices for fresh oranges have not risen much. Eighty percent of fresh oranges last season were grown in California and Arizona, where the crop was not affected by the cold weather.

California reports a 20 percent larger navel orange crop than last season, and its valencia crop likely will be 1 percent higher. Arizona's all-orange output is forecast unchanged from last year.

Freeze damage raised prices for orange products, most notably FCOJ. Florida processors' f.o.b. prices jumped from \$1.37 per pound of solids prior to the freeze to \$2.19 by early February. However, prices were uncharacteristically low before the freeze.

Increased imports of FCOJ may moderate the retail price spike, but U.S. consumption is still likely to slip. Prices for Brazilian FCOJ also rose following the freeze, to \$2.12 per pound of solids (f.o.b.) in early February.

Brazil reports a record FCOJ output and could partially make up the Florida and Texas shortfalls by boosting its exports to the U.S. Brazil accounts for the major share of U.S. FCOJ imports.

So far as supplies are concerned, grapefruit may be more affected by the cold spell than oranges, because Florida and Texas are the major suppliers. Florida produced 81 percent of U.S. grapefruit in 1988/89 and Texas nearly 7 percent. Florida's output, which was forecast down 20 percent from last season prior to the freeze, likely will fall an additional 18 percent, while production in Texas is forecast down 58 percent.

By hurting grapefruit quality, the freeze reduced export prospects and lowered growers' average prices. Although fresh prices rose, the all-Florida grapefruit price in January fell to \$3.94 per box, on-tree equivalent, from \$5.02 in December.

For processed grapefruit products, upward pressure on retail prices will be moderated by the large stocks left unsold from last year. Processors' carryover stocks of frozen concentrated grapefruit juice have risen in recent years and will help offset this year's shortfall.

The cold weather did considerable damage to Florida's strawberry crop. Although growers used overhead sprinklers to protect the plants, berries were lost. Production returned to normal by the end of February, though, and March shipments should be fairly typical.

Earlier-than-usual strawberry shipments from California and a rise in imports from Costa Rica and Guatemala partially filled the gap left by lighter Florida shipments. March and April traditionally are Florida's peak strawberry months.

Freeze Cut Tomatoes, Corn

The winter vegetable harvest was just shifting to the extreme southern areas in Florida when the freeze hit; virtually all unharvested production was destroyed or damaged. Tomatoes and sweet corn, the two highest value vegetables shipped from Florida in the winter, were hit the hardest.

Growers replanted some fields and salvaged damaged plants on others. Nevertheless, shipments fell short of their usual level in January and February. Normal seasonal shipping patterns are expected to return during March and April.

Mexico typically supplies nearly half the fresh tomatoes, bell peppers, cucumbers, squash, eggplant, and snap beans marketed in the U.S. during January-March. Increased imports from Mexico this season partly offset some of the shortfall in Florida shipments.

Although the freeze boosted retail prices for most fresh vegetables during January and February, prices likely will return to seasonal levels by the second quarter.

Following the 1983 freeze, the index of retail prices for all fresh vegetables rose

15 percent during January and an additional 6 percent in February. By the second quarter, the index had returned to near its prefreeze level.

The index of prices for all fresh vegetables will rise less than the prices for individual items. The reason: the overall index is heavily weighted by potato and lettuce prices, neither of which were greatly affected by the freeze. Most lettuce is grown in California and Arizona, and most potato sales during the winter are from storage stocks.

Nursery Stock Hit Hard

The largest losses of all during the freeze occurred among field-grown palms and other subtropical nursery plants in south Florida, where up to 50 percent of the marketable crop was lost to the cold. The nursery stock grown under cover was also frozen, along with potted foliage plants such as diffenbachia, dracaena, philodendron, and ferns.

Supplies will be down and prices up for the critical spring market. Buyers frequently purchase palms and other subtropical foliage plants for use on patios during the summer.

Growers of cut flowers, potted flowering plants, and cut cultivated greens also suffered losses to the cold. Young leatherleaf ferns, designated for the Easter market, were affected the most.

Supplies of all cut greens will be tight until new foliage grows out. Prices reportedly rose 10 to 25 percent following the freeze. Florida accounted for nearly 90 percent of the wholesale value for U.S. cut cultivated greens in 1988.

Domestic Sugar Output Drops

In January, USDA lowered the forecast of U.S. sugar production from the 1989/90 crop by 356,000 short tons, or 5.1 percent. Cane sugar production is now forecast to be 3.1 million short tons, raw value, down 167,000 from November's estimate.

Florida's production prospects fell 130,000 tons following the freeze, while Texas's dropped 27,000. The sugarcane harvest in Florida was 40- to 45-percent complete when the freeze hit, while Texas had harvested 55 percent of its cane. In Louisiana, losses were limited to 20,000 tons because the processing season was virtually over. Hawaii's production is now expected to be marginally higher than forecast in November.

Beet sugar production is forecast at 3.5 million tons, raw value, down 5.1 percent from November's estimate, because of lower sugarbeet yields and sucrose content.

Reflecting a tighter domestic sugar crop, the U.S. sugar import quota for January 1, 1989, to September 30, 1990, was increased by 325,000 metric tons to 2.58 million.

The increase, the third during the current quota period, likely will move domestic raw sugar prices closer to the market stabilization price (MSP). The MSP for fiscal 1990 is 21.95 cents a pound. Prices averaged 23.77 cents for the first half of January, but by the end of January moved below 23 cents.

For the fifth consecutive year, world sugar production will fall short of consumption, and world prices are moving up. By the end of 1989/90, stocks could drop to 18 million metric tons, 1 million below a year earlier.

World sugar prices (f.o.b. Caribbean ports, contract no. 11) averaged 13.5 cents a pound in December, but rose to 14.4 in January. The world price for 1988/89 averaged 11.91 cents. The increase in the U.S. import quota and recent purchases by Mexico and Pakistan bolstered prices. [Glenn Zepp (202) 786-1883]

For further information, contact: Kate Buckley, fruit; Shannon Hamm, vegetables; Peter Buzzanell, sweeteners; Verner Grise, tobacco; Doyle Johnson, tree nuts and greenhouse/nursery; David Harvey, aquaculture. All are at (202) 786-1883. ■

Recovery Slows for Farm Lenders

Farm lending institutions continued to rebound through mid-1989, albeit at a slower pace than in the past 2 years. Delinquent loans dropped for each of the four major lender groups, although the decline was not as large as in the previous year. The Farm Credit System (FCS) and agricultural commercial banks became more profitable.

Improved quality and performance in loans made by private lenders, combined with an excess supply of credit, are intensifying competition to lend. Recent structural changes among lenders add another new dimension to this competition. Commercial banks are gaining market share at the expense of the FCS and USDA's Farmers Home Administration (FmHA).

Loan Portfolio Quality Better

Midyear 1989 results show, for the fourth consecutive year, a drop in commercial banks' delinquent farm loans that are not secured by real estate. The FCS and insurance companies experienced a drop in farm loan delinquencies for a third straight year. FmHA's dud loans fell last year for the first time in the 1980's.

In each case the decline was small relative to the total portfolio, though. For FmHA, delinquent loans actually represented a higher proportion of the portfolio because total loans shrank more.

Net farm loan chargeoffs at midyear were running at about half the level of a year earlier for both the FCS and commercial banks. This reflects improved loan quality for both lender groups. But, the dollar volumes of remaining delinquent loans mean that further write-offs



are in the offing, as lenders seek to recover the loan quality they had prior to the farm financial crisis.

Lenders are continuing to clear their balance sheets of foreclosed farmland. Land prices have improved because the rebounding farm economy has made farmers start thinking about expanding again.

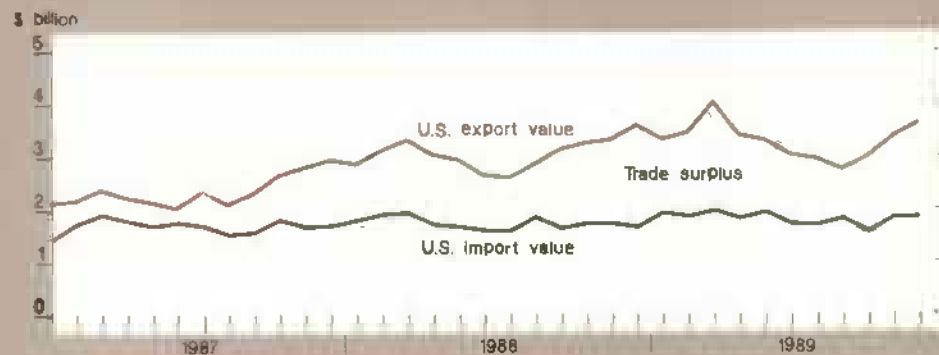
Leading the way in inventory sales is the FCS, which cut its farmland holdings by more than 50 percent from the peak in 1986. The FCS and the life insurance industry have each sold over \$500 million in acquired properties, while FmHA and commercial bank inventories are down by \$168 and \$105 million.

Both the FCS and commercial banks reported healthier profits. This is true despite a slight decline in net income reported by the FCS. For first three quarters of 1989, FCS income was \$457 million, down \$27 million from a year earlier. But the comparison was skewed because 1989 net income was derived more from actual interest payments, and less from paper gains created by reversing loan loss reserves.

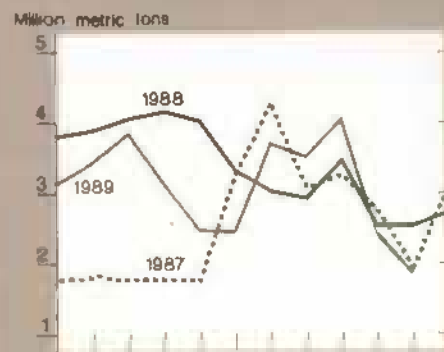
Agricultural banks reported an estimated annualized return on assets of 1.1 percent and a return on equity of 11.8 percent for the first half of 1989, the highest since 1982. At 10.4 percent of assets, farm

U.S. Agricultural Trade Indicators

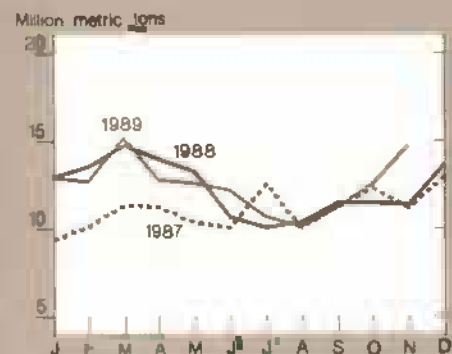
U.S. agricultural trade balance



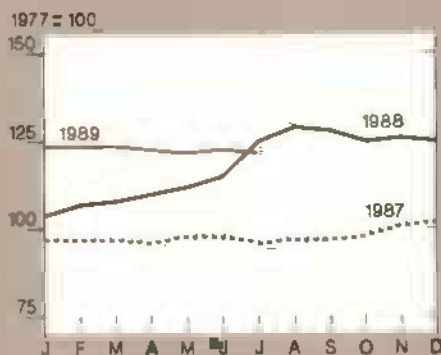
U.S. wheat exports



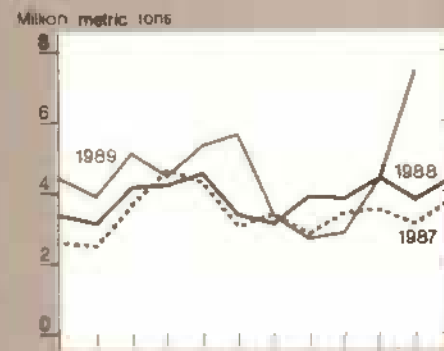
Export volume



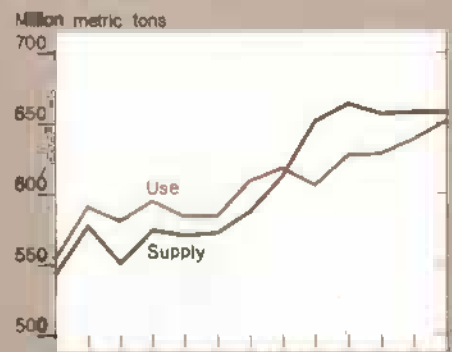
Index of export prices



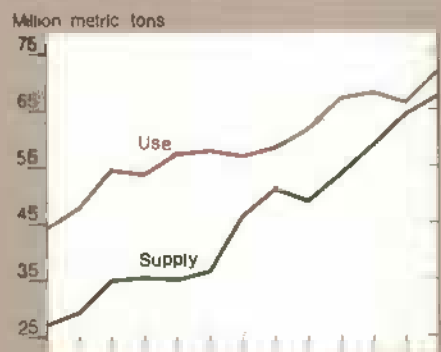
U.S. corn exports



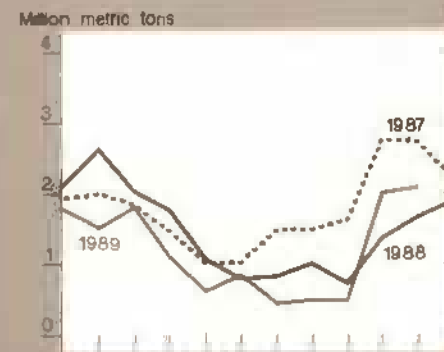
Foreign supply & use of coarse grains



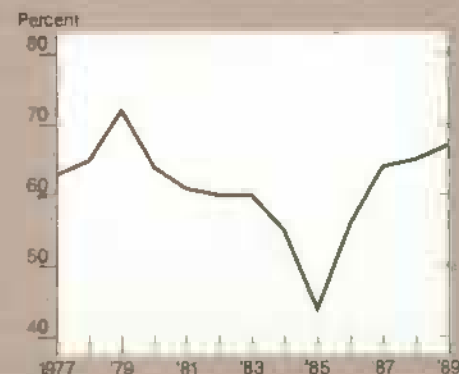
Foreign supply & use of soybeans



U.S. soybean exports



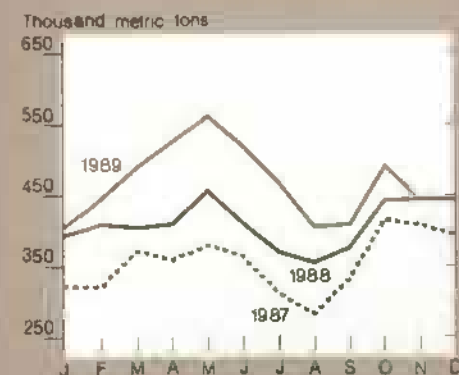
U.S. share of world coarse grains exports^{1,2}



U.S. share of world soybean exports^{1,2}



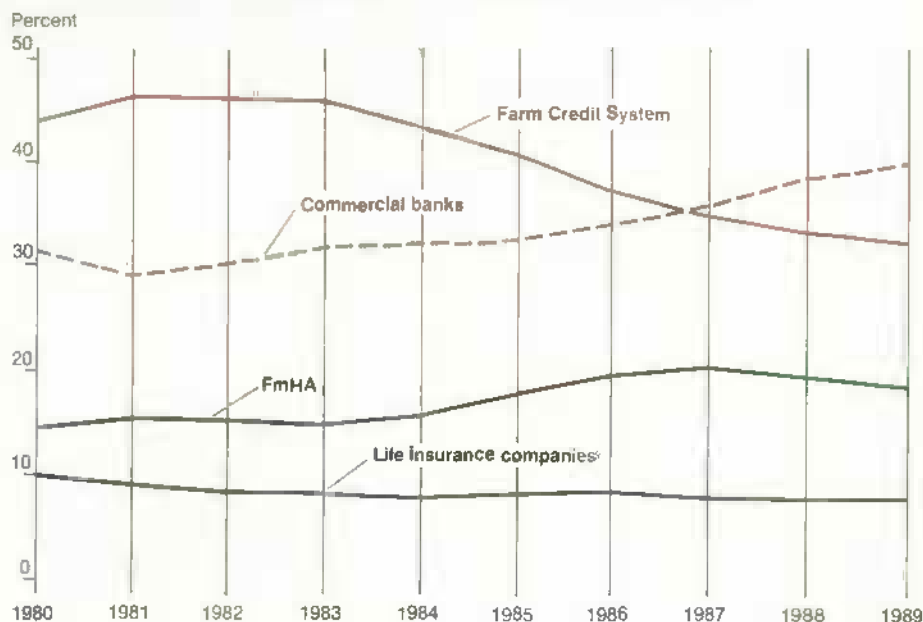
U.S. fruit & vegetable exports³



¹Excluding intra-EC trade ²October-September years

³Includes fruit juices

FCS Share of Farm Debt Dropping, Commercial Banks' Share Rising*



*Excludes household debt; 1989 preliminary.

bank capitalization was the highest since the decade's beginning. In 1989, 24 agricultural banks failed, the fewest since 1983.

Loan Volume Down Slightly

Preliminary yearend data for 1989 indicate a 2-percent decline in total farm debt. The estimated \$2.8-billion drop means that farm debt has fallen \$57 billion (29.6 percent) from its 1984 peak.

Debt outstanding fell among all lender groups except commercial banks, which are estimated to have increased loan volume. Preliminary estimates of farm loan drops for life insurance companies, FmHA, and the FCS range from \$100 million to \$1.6 billion.

As of mid-1989, commercial banks reported an annual 3.4-percent increase in total farm loans, the second straight year of gains. Bank loans backed by real estate increased 7.5 percent over midyear 1988 because of the combined effects of land purchases by farmers, refinancings, and banks' requiring real estate as collat-

eral for new loans. Non-real estate farm loans made by banks were up just over 1 percent.

Capacity to make loans remains strong at all lenders, but demand is sluggish. At the end of the fiscal year, FmHA had funds for direct operating loans that went unused, a situation uncommon during the 1980's. Agricultural bankers report that midyear loan-to-deposit ratios were well below desired levels.

Some life insurance companies report increased loan activity as farm real estate begins to move. At all private lenders, credit quality remains the dominant concern, with stiff competition for high-quality borrowers.

Two additional factors likely to affect farm credit supply are the advent of the Farmer Mac secondary market for farm loans and lenders' liability for environmental problems. Farmer Mac, which is expected to get off the ground this year, should increase agricultural real estate credit supplied over time, although the gain will be gradual.

Concern over environmental liability on land used as loan collateral may have the opposite effect, shrinking credit, as lenders wait to see how courts treat holders of property acquired in foreclosure.

Commercial Banks Grab Market Share

The farm financial crisis substantially altered market shares among the four lender groups. The changes reflect not only private lender strategies, but shifts in federal policy as well. Only life insurance companies have retained a fairly constant market share, which has ranged between 8.2 and 10 percent during the 1980's.

FCS and commercial banks have nearly reversed their positions, with the FCS dropping from 44.1 percent of the market in 1980 to an estimated 32.5 percent in 1989. Commercial banks went from a 31.3-percent market share to 40.6 percent during the same period.

FmHA began the decade with 14.6 percent of the market, rose to 20.6 percent in 1987, and probably ended the decade with an 18.7-percent share.

Of the four lender groups, only life insurance companies were relatively unaffected by direct regulatory or legislative action during the eighties.

The FmHA has had its emphasis changed from direct lending to issuing more guarantees for privately made loans. In fiscal 1980, 99 percent of its \$6.3 billion in obligations was allocated to direct loans. By 1989, of its \$2.2 billion total, only 46 percent went to direct loans and 54 percent to guarantees.

The FCS nearly collapsed in 1985, and a series of legislative rescue attempts culminated in the Agricultural Credit Act of 1987. The act radically changed the structure of the FCS. It required district-level mergers between Federal Land Banks and Federal Intermediate Credit Banks, creating new Farm Credit Banks (FCB's). The FCB's then were allowed

FmHA Shows Improvement for First Time Since the Farm Financial Crisis

Lender and date	Delinquent loans 1/	Share of portfolio 2/	Net loan charge-offs	Share of portfolio 3/	Value of acquired properties 4/
	\$ million	Percent	\$ million	Percent	\$ million
FCS					
12/31/84 5/	5,689	8.7	428	0.5	496
12/31/85	6,465	9.7	1,105	1.4	928
12/31/86	8,137	14.9	1,321	1.9	1,093
12/31/87	5,749	11.6	488	0.8	873
12/31/88	3,757	7.3	413	0.8	661
6/30/89	3,326	6.6	19	0.0 6/	505
FmHA 7/					
6/30/84	5,937	21.3	117	0.5	NA
6/30/85	6,385	23.0	234	0.9	638
6/30/86	6,835	24.6	379	1.4	758
6/30/87	7,005	26.7	1,119	4.1	777
6/30/88	8,750	34.5	2,022	7.8	633 8/
6/30/89	8,700	37.1	NA	NA	609
Comm. banks 9/					
12/31/84	2,100	5.2	900	2.3	NA
12/31/85	2,600	7.3	1,300	3.3	NA
12/31/86	2,200	7.0	1,200	3.4	414
12/31/87	1,509	5.2	535	1.7	438
12/31/88	1,062	3.5	140	0.5	400
6/30/89	1,015	3.3	41	0.1	333
Insurance companies					
12/31/84	1,167	9.6	NA	NA	NA
12/31/85	1,717	15.1	NA	NA	692
12/31/86	1,783	17.0	NA	NA	1,442
12/31/87	1,330	14.3	NA	NA	1,619
12/31/88	808	8.9	NA	NA	1,226
6/30/89	757	8.7	NA	NA	1,073

NA=not available. 1/ Includes: for commercial banks and FCS, loans past due 90 days or more and still accruing interest plus loans in nonaccrual status; for FmHA, only principal and interest payments more than 15 days past due; for insurance companies, loans past due 90 days or more plus those in the process of foreclosure. 2/ As a percentage of all such loans held at the end of the period. 3/ As a percentage of all such loans held at the beginning of the period. 4/ Excludes property held by the Banks for Cooperatives. 5/ 1984 figures not directly comparable since this was transition year in changing to new accounting practices. 6/ Less than 0.04 percent. 7/ Includes only data for Farmer Loan Programs. Loan charge-offs are for the fiscal year. 8/ Decrease from previous period may reflect changes in reporting procedures. 9/ Estimates for bank-held farm non-real estate loans. Beginning 12/87, charge-offs do not include losses qualified for the deferred loan loss program.

to merge across the 12 districts to as few as 6 FCB's.

The act allowed for mergers among Banks for Cooperatives and mergers between Federal Land Bank Associations and Production Credit Associations, creating some new variations of these lending units. More structural change is anticipated as the FCS strives to become more efficient and regain its market share.

Commercial banks were deregulated at the federal level early in the 1980's. As the 1980's progressed, many states loosened regulations against branching. Interstate banking was fostered. The farm- and oil-related contractions, com-

bined with surging bank failure rates and new failure resolution policies, led to greater differences between large and small banks' performance.

Nearly 1,600 banks, mostly small, disappeared between 1982 and 1989. This trend is likely to continue. Even though agriculture traditionally has been served by small independent banks, as of mid-year 1989 the largest banks held nearly one-quarter of commercial bank farm debt. And the big banks are increasing their share. [Doug Duncan (202) 786-1893] ■

Irrigated Area To Grow



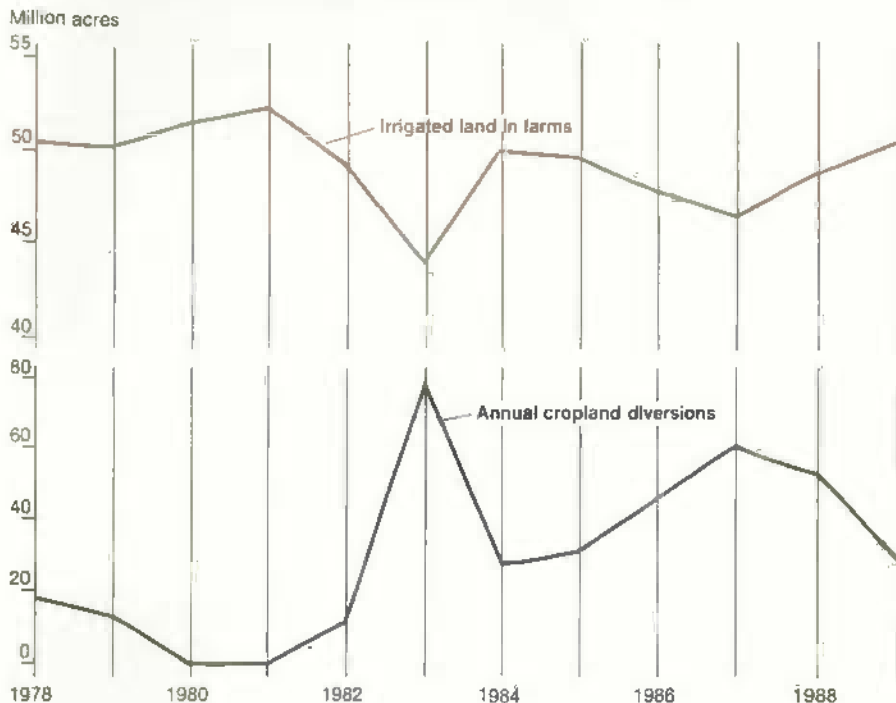
Farmers in the U.S continue to irrigate more land and may irrigate record areas in the early 1990's, if acreage idled by the Acreage Reduction Program continues to drop. To see this trend, though, one has to look beyond the usual statistics on irrigation.

From 1949 to 1978, the area irrigated doubled, reaching 50.3 million acres, with each Census of Agriculture documenting uninterrupted growth. But, the Census of 1982 broke this trend with a drop of 1.3 million acres. The 1987 Census showed a further decline of 2.6 million acres.

A closer look at the Census and other data, however, shows this apparent reversal in trends to be an illusion. Annual data indicate that year-to-year changes in irrigation of program crops are significantly influenced by annual acreage reduction requirements. In 1987, the most recent Census year, 60.5 million crop acres were idled under annual programs, up from 11 million in 1982 and 18 million in 1978.

In only one other recent year have farmers irrigated less area. That was in 1983, when PIK contributed to a record 78 mil-

Changes In Irrigated Acreage Reflect Shifts in Diverted Acreage



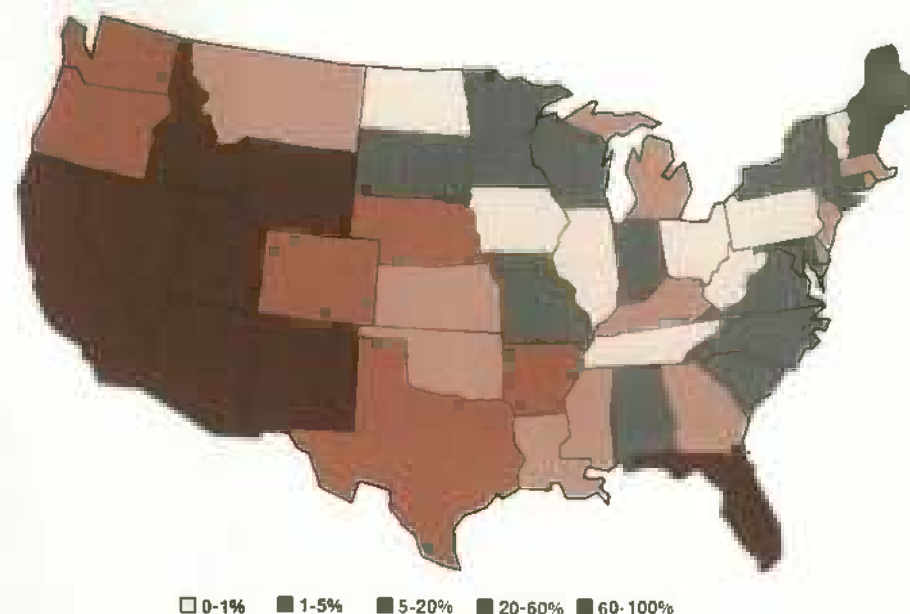
lion acres diverted under annual commodity programs. Thus, changes in annual program diversions are strongly correlated with changes in irrigated area. This is especially true for rice and cotton.

For all program crops, about 12 percent of the year-to-year changes in annual ARP area show up as changes in irrigated area.

Lower ARP's Linked To More Irrigation

Since 1987, a substantial reduction in commodity stocks has allowed USDA to ease acreage reduction requirements. In 1989, area diverted under annual programs was about half of the 1987 acreage reductions. Preliminary estimates of irrigated land in farms show that more farmland was irrigated in 1989 than in any year since 1981. At 50.4 million acres, the 1989 irrigated area is up 4 million acres over that reported by the 1987 Census.

West & South Have Highest Share of Cropland Irrigated



Based on 1987 data.

The Census also tracks the proportion of cropland harvested which is irrigated; this trend too shows that farmers are irrigating more. In 1987, 14.8 percent of harvested cropland was irrigated, up from 12.5 in 1978 and 13.8 in 1982.

This trend in the proportion is broad, showing few exceptions across crops or states. The growth in the proportion of harvested acreage that is irrigated is strongest among high-value crops such as fruit, vegetables, peanuts, and tobacco.

It is also geographically broad-based. Only two states, Arizona (almost 100 percent irrigated) and Texas, show that a

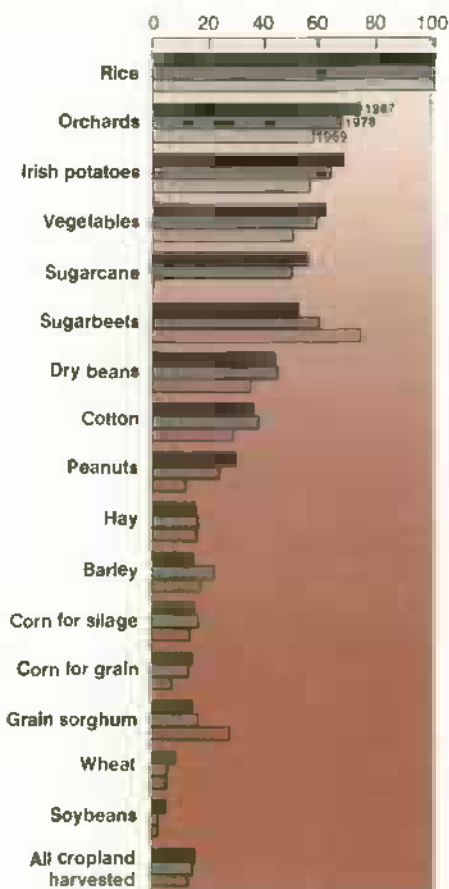
Irrigated Land Growth Reflects Technology, Federal Programs

Region	Census 1969	Census 1978	Est. 1979	Est. 1980	Est. 1981	Census 1982	Est. 1983	Est. 1984	Est. 1985	Est. 1986	Census 1987	Preliminary 1988	Preliminary 1989
Million acres													
The arid West	22.8	26.8	26.9	26.8	27.1	26.0	24.0	25.8	25.1	24.4	24.1	24.8	25.7
Plains States	12.0	16.4	16.4	17.1	17.0	15.3	12.4	15.7	15.5	14.6	13.4	14.1	14.7
The humid East	4.2	7.0	6.8	7.3	7.9	7.6	7.2	8.3	8.7	8.4	8.7	9.7	9.8
Total: U.S.	39.1	50.4	50.2	51.4	52.1	49.0	43.7	49.9	49.5	47.5	46.4	48.7	50.4

smaller percentage of their harvested cropland was irrigated in 1987 than in 1982.

Following 1987, irrigated acreage was up in all regions, as acreage held out by annual programs declined. Much of the gain occurred in the Northern Plains and Mountain regions, where water is supplied mostly through an elaborate system of large reservoirs and downstream delivery operations.

Percent of Crop Irrigated: Specialty Crops, Rice, & Cotton Dominate



CRP Link Is Weaker

The proportion of irrigated land in the long-term CRP has not been as large as in the annual programs. Irrigated land in the CRP through 1987 represented less than 2 percent of total enrollment.

The long-term retirement of irrigated land is most likely to occur when an aquifer is near economic exhaustion (high pumping costs are eliminating profits), when old irrigation systems need costly repairs or replacement, or when farmers sell either their water or their land for nonagricultural uses.

The 1988-89 decline in the Southern Plains and Delta States is attributed to a high ARP for cotton, but also to participation in the Conservation Reserve Program in the High Plains. Farmers in the High Plains with greater pumping costs probably garner only marginal economic benefits from irrigation.

More Irrigation In the East

Regional trends in total irrigated acreage vary. The arid West depends heavily on irrigation, which was adopted early using surface water, made available to farmers largely by heavily subsidized public water projects.

About three-fourths of Western land was already irrigated in 1949. Back then, the West accounted for about 80 percent of U.S. irrigation. Western irrigated area peaked in 1977-81, but it has shown a modest recovery following the recent lows in 1983 and 1987.

Irrigation in the Plains States tripled in the postwar period, from less than 5 to more than 16 million acres. The primary factors allowing this largely private development were the new deep well pumps that reach groundwater aquifers, and the labor-saving, center-pivot distribution technology.

Expansion centered in the Southern Plains during 1949-69 and in the Northern Plains during 1969-78. Irrigation in the Southern Plains, in contrast to other regions, has not recovered to previous levels and may keep slipping.

Irrigation development now centers in the more humid Eastern states, where it supplements rainfall during short dry periods. From less than 5 million acres in 1969-74, irrigated area in these states has steadily expanded to about 10 million acres in 1989. In the past decade, expansion in the East has offset declines in the arid West and Plains states.

The potential is enormous for irrigated area to grow in the East. Water resources are plentiful and the adoption of irrigation for high-value and specialty crops is still under way.

Furthermore, irrigation is expanding to major field crops. Between 1982 and 1987, dependence on irrigation among Corn Belt producers of corn, although still small in acreage, increased by more than 50 percent. In the Delta, soybean

Farm Real Estate Values Revised Upward

According to revised USDA estimates, inflation-adjusted farmland values bottomed out earlier in the 1980's and have risen more since the trough than earlier believed. In February 1989, current-dollar farmland values nationwide averaged \$667 per acre, up from the previous estimate of \$597 (see table 1 in the back of this issue).

In real terms, farmland values reached their ebb in 1987, as opposed to a year later, according to the revisions. Real values during 1987-89 are now estimated to have risen 2.5 percent. Before the revisions, the average real value was believed to have been essentially unchanged.

Every 5 years, following the Census of Agriculture, USDA revises its annual estimates of farmland values. Census data are the most complete and accurate source for estimates of

national and state-level farmland values. USDA conducts smaller and slightly different surveys of farmland values to put together annual estimates.

The Census sample, which covers about 25 percent of all farm operators, totals over 500,000 farms. The Census questionnaire asks for estimates of the current market value of the land and buildings used by the respondent. Response is mandatory.

On the other hand, the USDA annual estimates between the Censuses are based on surveys of about 28,700 farm operators. And the questionnaire asks the respondents to estimate the values in their "locality" (since 1989, in their county), excluding farm buildings. Moreover, the USDA surveys ask for estimates by land use—cropland, pasture, and woodland. Response to the USDA surveys is voluntary.

Another critical difference is that the Census has better coverage of the rela-

tively small operations, and they often have high-valued real estate.

Because the 1987 Census was conducted in early 1988, the Census values are adopted as the revised USDA estimates for February 1988. When the Census values on a state level for that year are weighted by their acres in farmland, the 48-state estimate averages \$632 per acre, about 12 percent above the earlier USDA estimate of \$564.

The 12-percent adjustment is about the same size as the revision following the 1978 Census, but about double the adjustment that followed the 1982 Census. While the USDA estimates have been below the Census estimates for the last three Censuses on a national level, state-level estimates show no systematic differences.

Revised state-level estimates will be available in late April, in the *Agricultural Resources Outlook and Situation* summary. [Roger Hexem and Fred Kuchler (202) 786-1422]

producers irrigated 20 percent of their crop in 1987, compared with only 8 percent in 1982.

Long-Term Constraints Remain

In the near term, fluctuations in irrigated acreage will continue to be driven primarily by the weather (in humid states) and by short-term cropland diversion programs. With an easing of rice, wheat, and cotton acreage reduction requirements, and the continuing trend toward

higher proportions of crops being irrigated, irrigated area in 1990 will be about 1 million acres higher than in 1989.

Beyond 1990, irrigation could rise by 3-4 million acres above current levels if the area idled under the annual programs is brought back into production. The increasing dependence on irrigation highlights an additional background trend, with growth in the Northern Plains and the East exceeding declines in the Southwest by about a half million acres per year.

But there are limits. Across the Southwest and in Florida, there is intense competition for limited water resources. After a brief pause in the mid-1980's, the sunbelt's reputation for high-tempo growth in population and jobs has reasserted itself.

Growing municipal and industrial requirements translate into tighter competition for water resources and more limited water prospects for farming in sunbelt states. Elsewhere, water quality and other environmental issues limit the potential expansion of water used by farmers.

For significant long-term growth in irrigated area, the focus shifts to using irrigation water more efficiently. Water is already being budgeted better with low-pressure sprinkler and drip systems designed to target applications, better water management, and shifting use toward high-value crops. [Bill Quinby (202) 786-1433, John Hostetter, and Rajinder Bajwa (202) 786-1410] ■

CRP Up to 34 Million Acres

The Conservation Reserve Program gained 3.3 million acres from the ninth signup period, held July-August 1989. Approved from bids totaling 4.2 million acres, this additional area brings total CRP enrollment to 33.9 million acres. The signup reverses a trend of declining enrollments during earlier bid periods.

The CRP is a voluntary program administered by USDA. In exchange for farmers' retiring highly erodible or environmentally sensitive cropland for 10 years, USDA pays participants an annual per acre rent plus half the cost of establishing vegetative land cover, usually grass or trees.

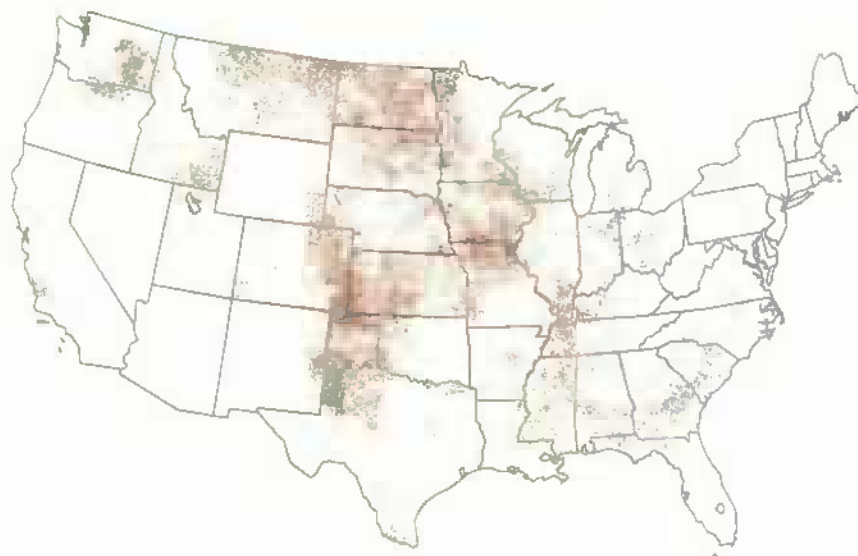
Yearly Payments Flat

Rental payments to be received by farmers in the ninth signup will average \$51 per acre per year, nearly the same as the eighth signup, but considerably above the \$42-\$47 average for the early signups in 1986. Federal government rental expenditures for all 33.9 million CRP acres will total \$1.7 billion per year.

The government cost-share for establishing vegetative land cover averaged \$37 per acre for the ninth signup. This average cost has been relatively steady through all signups, but individual costs can vary considerably for different conservation practices. The government has spent an estimated \$1.3 billion since 1986 on the cost-sharing.

Annual soil erosion reductions on land enrolled in the ninth signup averaged 14 tons per acre, substantially less than the 25-27 ton average for the initial signups.

Highest CRP Enrollment in Corn Belt, Northern Plains



One dot equals 1,000 acres. Total enrollment is 33.9 million acres.

CRP Enrollment Rebounds

Item	Number of contracts	Number of acres	Average rental rate	Average erosion reduction
	1,000	Million	\$/acre/yr.	Tons/acre/yr.
Signup period				
#1 Mar. 1986	9.4	0.75	42.06	26
#2 May 1986	21.5	2.77	44.05	27
#3 Aug. 1986	34.0	4.70	46.96	25
#4 Feb. 1987	88.0	9.48	51.19	19
#5 July 1987	43.7	4.44	48.03	17
#6 Feb. 1988	42.7	3.38	47.90	18
#7 July-Aug. 1988	30.4	2.60	49.71	17
#8 Feb. 1989	28.8	2.46	51.04	14
#9 July-Aug. 1989	34.8	3.33	50.99	14
Total	333.4	33.92	48.93	19

Erosion reduction from all CRP enrollment is currently estimated at 655 million tons per year, or about 21 percent of the erosion generated by all cropland.

Bulk Is in Northern Plains

Fully 44 percent (1.5 million acres) of new enrollment came from the Northern Plains (North Dakota, South Dakota, Nebraska, and Kansas), which now

accounts for 28 percent of the total acreage in the CRP. New enrollments in the Dakotas totaled 1 million acres.

The Mountain region furnished 14 percent (472,000 acres) of ninth signup enrollment, and the Corn Belt region 13 percent (432,000 acres).

About 78 percent of land enrolled in the ninth signup was scheduled to receive grass cover, while less than 7 percent was to be planted in trees. In addition, 8,700 acres were enrolled as filter strips, bringing total CRP filter strip coverage to nearly 49,000 acres. The remaining acreage will go to various conservation uses, including wildlife habitat.

Eligible for enrollment beginning with the eighth signup, cropped wetlands and scour erosion areas accounted for 254,000 and 80,000 acres of ninth enrollment. This brings total CRP cropped wetlands to 410,000 acres and scour erosion areas to 143,000 acres.

Enrollment of these acres, along with CRP filter strips, is expected to improve water quality. Scour erosion results when streams or rivers overflow into adjacent fields. Trees will be planted on most of this land.

In addition to environmental purposes, the CRP was enacted to help control commodity supplies. Including the 2.2 million acres of commodity program base in the ninth signup, a total of 21.8 million acres of base have been retired through the CRP.

Wheat base constitutes the largest portion (10.3 million acres), followed by corn (3.8 million), barley (2.7 million), and sorghum (2.4 million). Because these acres are ineligible for commodity program payments during the 10-year contract, the CRP is helping to hold down costs of traditional USDA producer support programs.

At present, additional enrollment in the CRP is uncertain. While the program has been extremely successful in reducing soil erosion, some environmentalists feel that too little emphasis has been given to water quality goals. Other critics have expressed concerns about the amount of wheat base acreage idled by the program.

While enabling legislation envisioned a goal of 40-45 million acres in the CRP by the end of 1990, no 1990 signup opportunities have yet been announced.

[Tim Osborn (202) 786-1405] ■

Food Price Rises To Moderate

In 1990, food prices are expected to rise 3 to 5 percent. The forecast reflects the impact of the Christmas freeze in Florida and Texas on fruit and vegetable prices. It also shows the effect of an expected drop in U.S. pork production. Even with these recent developments, the forecast remains moderate relative to 1989.

In 1989, the CPI for food averaged 5.8 percent higher than in 1988, the sharpest increase since 1982, according to final data. Food prices rose faster than many other prices; the CPI for all goods and services rose 4.8 percent.

Prices for food sold in grocery stores last year averaged 6.5 percent above 1988, while food sold in restaurants and fast food establishments rose a relatively modest 4.6 percent.



Freeze Pushes Up Retail Prices

The December freeze destroyed fresh market citrus production in Texas, although much of the fruit was salvaged for processing. In Florida, grapefruit production was slashed 14 percent. Texas and Florida provide about 80 percent of fresh grapefruit but only about 20 percent of fresh oranges.

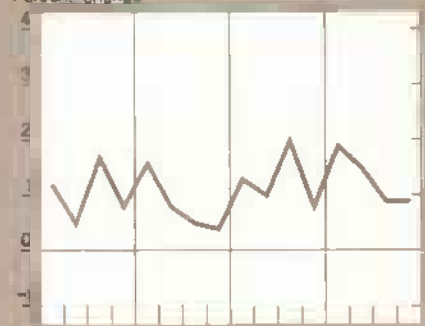
Poultry and Egg Prices To Drop, But Fresh Fruit Prices Surge

Consumer price indexes	Relative Importance	1987	1988	1989	Forecast 1990
Percent					
All food	100.0	4.1	4.1	5.8	3 to 5
Food away from home	38.3	4.0	4.1	4.6	3 to 5
Food at home	61.7	4.3	4.2	6.5	2 to 4
Meat, poultry, & fish	18.9	6.4	3.5	5.0	1 to 3
Meats	12.5	7.1	2.4	4.0	2 to 4
Beef & veal	6.5	7.6	5.5	6.4	0 to 2
Pork	3.5	8.2	-3.0	0.6	5 to 8
Other meats	2.5	6.3	2.6	2.8	2 to 4
Poultry	3.0	-1.5	7.2	9.9	-6 to -9
Fish & seafood	2.4	10.6	5.8	4.5	3 to 5
Eggs	1.0	-5.9	2.3	26.6	-10 to -14
Dairy products	7.6	2.5	2.4	6.6	1 to 3
Fats & oils	1.7	1.5	4.6	7.2	2 to 4
Fruits & vegetables	11.3	8.8	7.6	8.5	5 to 7
Fresh fruits	3.7	11.3	8.3	6.6	8 to 12
Fresh vegetables	3.4	12.9	6.3	10.7	4 to 6
Processed fruits & veg.	4.2	3.5	7.9	6.3	3 to 5
Processed fruits	2.4	4.1	10.3	3.2	5 to 9
Processed vegetables	1.8	2.7	4.8	10.7	0 to 2
Sugar & sweets	2.2	1.8	2.7	4.7	3 to 5
Cereals & bakery prod.	8.7	3.5	6.4	8.4	5 to 7
Nonalcoholic beverages	5.0	-2.6	0.0	3.5	3 to 5
Other prepared foods	6.4	4.2	3.7	6.4	3 to 5

Source: Historical data from Bureau of Labor Statistics; forecasts by Economic Research Service, USDA.

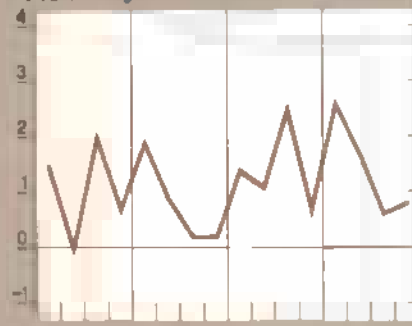
CPI: Total food^o

Percent change



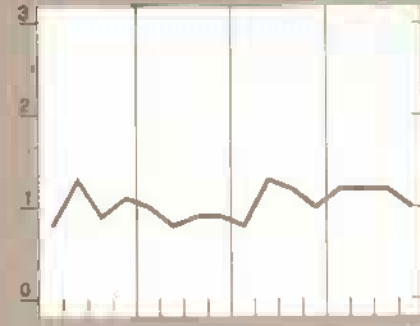
CPI: Food at home^o

Percent change



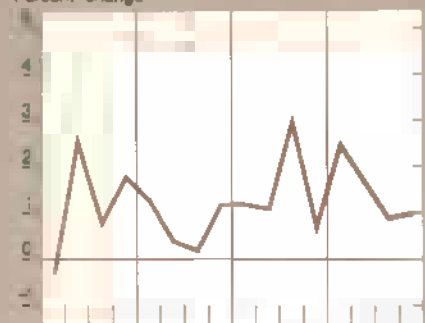
CPI: Food away from home^o

Percent change



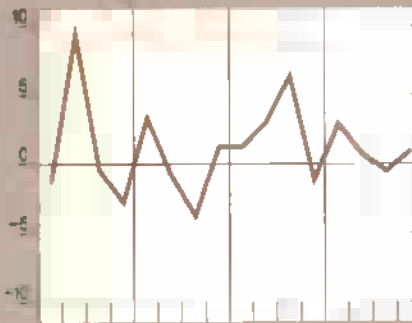
Retail cost of food¹

Percent change



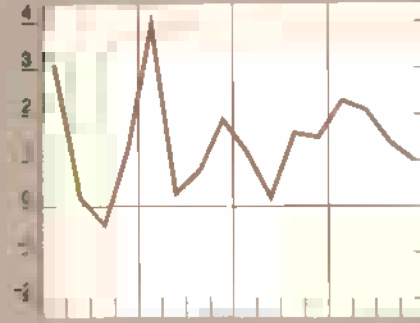
Farm value of food¹

Percent change



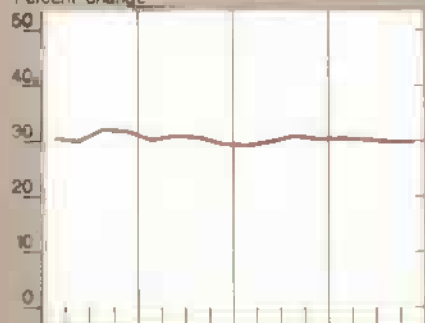
Farm-retail spread¹

Percent change



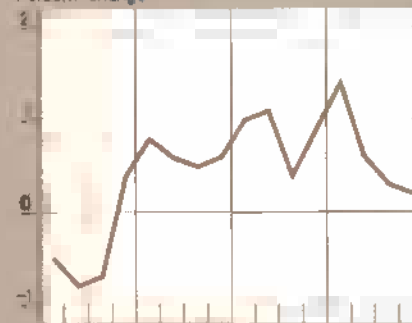
Farm value/retail cost¹

Percent change



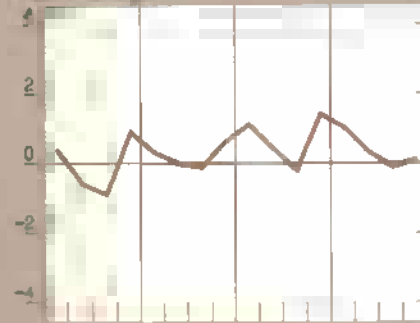
Food marketing cost index²

Percent change



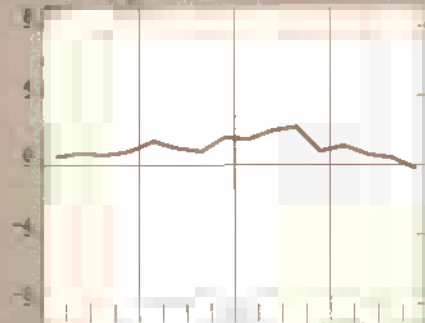
Index of hourly earnings^{3,4}

Percent change



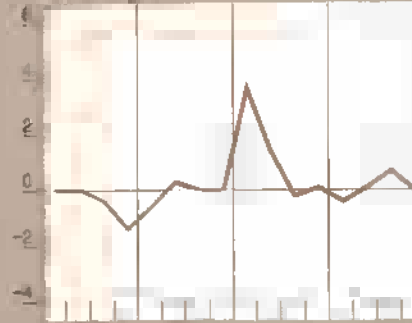
Index of packaging prices⁴

Percent change



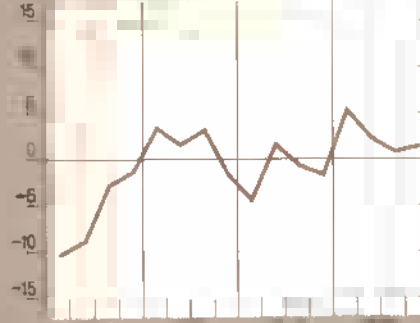
Index of rail freight rates⁴

Percent change



Index of energy rates⁴

Percent change



^oCPI unadjusted. ¹Index based on market basket of farm foods. ²Index of changes in labor, packaging, transportation, energy, and other marketing costs.

³In food retailing, wholesaling, and processing. ⁴Component of food marketing cost index.

All series expressed as percentage change from preceding quarter except for "Farm value/retail cost" chart.

The price impact will be stronger for fresh grapefruit than for fresh oranges. A larger California orange crop this year will help offset any fresh market shortages caused by the freeze. Nevertheless, the CPI for all fresh fruit is forecast to rise 8 to 12 percent above 1989.

Most of Florida's oranges are processed into frozen concentrated orange juice. This year, FCOJ production in Florida is expected to be 60 to 70 million gallons below last year. But, Brazilian output is 90 million gallons larger than a year earlier. Thus, FCOJ imports from Brazil will be greater than usual and will dampen upward price pressure.

Even so, FCOJ prices likely will climb. The CPI for all processed fruit in 1990 is expected to average 5 to 9 percent above 1989. Brazil has raised the price of its exported product.

The freeze also hit fresh vegetable crops in Florida and Texas. Shipments have fallen sharply since, causing shortages in many markets. Under ordinary conditions, nearly half of U.S. winter vegetables come from Mexico. While Mexico is boosting vegetable sales to the U.S. this winter, it will not be able to offset all of the domestic shortfall.

Retail prices for fresh vegetables have shot up. Tomato prices in January were more than double a month earlier. The CPI for fresh vegetables in the first quarter of 1990 likely will average 30 percent above the last quarter of 1989.

As new harvests begin in late March, both from replanted winter area and from spring acreage, fresh vegetable supplies will expand and prices will fall steeply. Second-quarter prices will be well below first-quarter, but still not enough to offset the first-quarter spike. So, the CPI for fresh vegetables in 1990 will rise 4 to 6 percent above 1989.

Tighter Hog Supply Boosts Pork Prices

Pork production in 1990 is expected to be down 1 to 3 percent from 1989. Smaller market hog inventories and

lower farrowing intentions reported by producers suggest smaller production. As a result, retail pork prices are expected to average 5 to 8 percent above 1989.

Despite the fruit/vegetable and pork price gains, ample supplies of most foods this year will help to keep price rises below the 1989 rate. Costs of processing and distributing food will increase more slowly, reflecting a lower overall rate of inflation expected for 1990.

Sharply lower poultry and egg prices this year, reflecting larger production, will help to offset strong increases in fruit and pork prices. Prices of most other foods will rise within the 3- to 5-percent range. [Ralph Parlett (202) 786-1870] ■

Upcoming Economic Reports

Summary Released	Title
March	
9	World Agricultural Supply & Demand
12	Vegetables & Specialties
14	Fruit & Tree Nuts
15	Sugar & Sweeteners
19	Agricultural Outlook
20	World Agriculture
22	U.S. Agricultural Trade Update
23	Livestock & Poultry Update
28	Aquaculture

How Effective Is the ARP?

Recent USDA research shows that raising the Acreage Reduction Program requirements in the feed grain program from a theoretical 5 percent up to 40 percent would cut government outlays by \$4.7 billion and reduce net farm income by \$2.8 billion. The research indicates that the hike would push down feed grain output only about 5 percent.

Falling program participation rates, combined with more intensive use of permitted acres, are behind these results.

Since, according to these results, changing ARP's has only minor effects on overall supplies of feed grains, the primary trade-off of changing ARP's is between budget outlays, stock levels, and net farm incomes. Moreover, the effects of the ARP beyond the farm sector were found to be small when measured from the 1989 benchmark.

The theoretical analysis here shows that ARP's lose their effectiveness as the percentage ARP requirement is increased. The analysis simulates what would happen as feed grain ARP's are increased somewhat beyond historical experience to help illustrate this point. The actual high was set in 1987/88, when the feed grain ARP combined with the Paid Land Diversion required participating farmers to put 35 percent of base acres into conserving uses.

The specific results of the research hinge in part on the benchmark year used. But the choice of a benchmark does not affect the basic conclusions. Participation rates depend on the gap between the target price and the expected market price, so choosing a year with lower market prices as the benchmark would have muted the results slightly.



Nevertheless, as the ARP percentages increase, participation rates drop sharply. And there is some evidence that the results here may understate how fast participation drops.

Slippage Cuts Effectiveness

Acreage and production responses in the study show that a feed grain ARP of 5 percent is only 40-percent effective in controlling corn acreage. Effectiveness was defined as the actual percent reduction in acreage (or production) divided by the ARP percentage. Effectiveness in controlling acreage declines to 25 percent at an ARP of 40 percent.

Slippage, the fact that production does not decline as much as program acreage idled increases, accounts in part for the ARP's lack of effectiveness. Participants would use more chemicals and equipment, and plant on their best land, while idling their least productive acres. Slippage is nearly constant at 15 percent of the acreage idled, study results indicate.

Acreage planted to corn would decline by a maximum of slightly over 6 percent if the ARP were increased anywhere

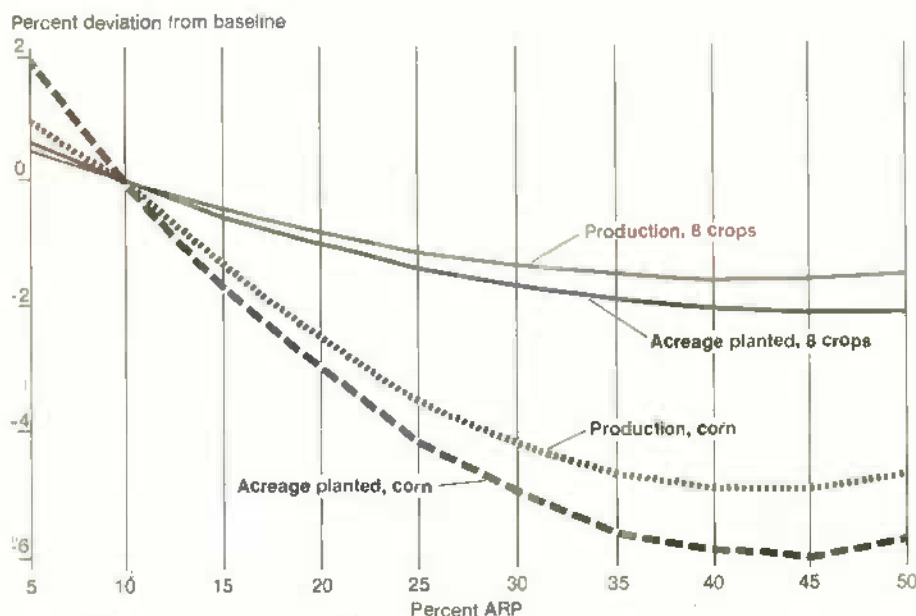
from 5 to 40 percent. But, yield increases on the remaining acres would cause corn production to decline by only about 5 percent.

This research shows that ARP's above 40 percent actually would result in increased total acreage and production of corn. Anticipating higher prices, farmers

not in the program would enlarge their planted acres markedly.

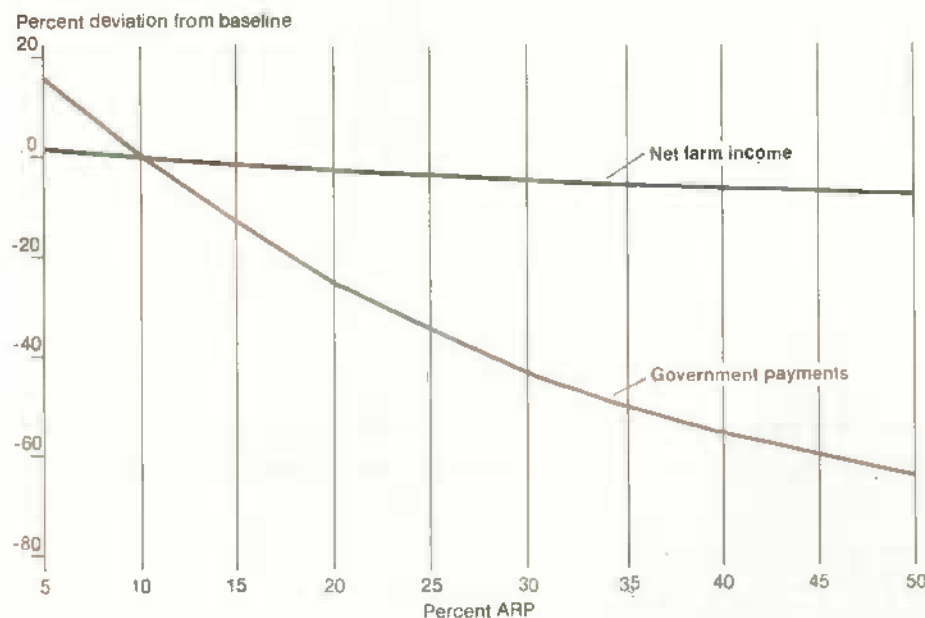
Barley and sorghum production would each decline by a maximum of 13 percent. Even though not directly affected, soybean acreage and production would respond in the opposite direction from feed grains, increasing by up to 2.6 per-

50-Percent Feed Grain ARP Cuts Output of 8 Major Crops* Only 1.5 Percent



*Wheat, corn, sorghum, barley, oats, soybeans, cotton, and rice.

How Higher Feed Grain ARP Would Affect Government Payments, Net Farm Income



cent if the feed grain ARP were upped to 40 percent.

If the feed grain ARP were increased anywhere from 5 percent to as high as 50 percent, total acreage planted to the eight major crops (wheat, corn, sorghum, barley, oats, soybeans, cotton, and rice) would decline by less than 3 percent at most from the benchmark, and total output would decline by less than 2 percent.

Farmers Would Leave Programs

Farmers' participation rates in the programs are the most important variables in the response of acreage to different ARP's. Participation in the corn program, for example, would drop from 80 percent to 43 percent if the feed grain ARP were raised from 5 percent to 50.

At an ARP of 50 percent for all program feed grains, the program acreage planted to them would decline sharply, from nearly 78 million to 24 million. Acreage in conserving uses in the programs would increase from 4 million to 24 million.

The maximum reduction in planted acres of the eight major field crops (5.6 million) would be only about one-quarter of the increase in land in conserving uses in the programs. Nonparticipants would adjust their plantings by taking land out of forage and minor crops to increase their plantings of major crops. This would nearly offset the effects of the ARP on production.

On-Farm Use, Stocks Would Change

Under a much greater ARP, decreases in production would push up prices and lower on-farm use and stocks. Declines

What Would Happen If the Feed Grain ARP Rose to 40 Percent

Variable	Corn	Sorghum	Barley	Wheat	Soybeans
Percentage change from benchmark					
Prices	15.0	15.6	24.6	2.5	-5.9
Production	-5.0	-7.7	-9.0	-0.0	2.0
Total use	-3.3	-4.3	-5.5	2.6	1.2
On-farm	-2.3	-5.2	-4.6	3.1	-0.1
Food & Ind.	-0.1	0.0	-0.9	0.4	0.7
Exports	-0.9	0.9	0.0	-0.9	0.6
Stocks	-1.7	-3.5	-3.5	-2.6	0.8

How the Analysis Was Done

When policymakers assess establishing a particular level of ARP in a given year, they weigh the relative strength of the desired effects—production control, budget reductions, and limiting CCC stock accumulation—against any undesirable side-effects.

The determining factor in whether ARP's produce side-effects on the economy is their ability to control supply. If ARP's are effective, they will have pervasive impacts on the non-farm sector. If they do not reduce output much, their effects will be limited to the farm sector.

The effectiveness of ARP's in reducing supply of supported commodities depends on such factors as:

- participation rates, or the proportion of acreage signed up for the programs;
- slippage, or the offsetting changes in the use of inputs and resources by participants;
- base-building or -preserving behavior, that is, planting crop mixes that maintain or expand a farm's program acreage base;
- adjustments in the farm sector that offset the ARP's, such as crop mix

adjustments by nonparticipants, inventory drawdowns, and livestock feed utilization changes;

- adjustments in the nonfarm sector, such as in food and industrial use of commodities and exports.

In previous research, most of these individual relationships have been estimated to be relatively minor in importance. But, the simultaneous effects of these factors on the effectiveness of ARP's can be quite different, as shown here.

In this analysis, ERS's Food and Agricultural Policy Simulator (FAPSIM) model was run to assess how increasing the ARP in the feed grain program would affect some major variables of the farm sector. The FAPSIM model incorporates statistical estimates of all the relationships listed above that help to determine the effectiveness of ARP's.

The ARP in the feed grain program was varied from 5 percent to 50 percent by increments of 5 percentage points for 1989, after which the ARP's were returned to their benchmark levels. Deviations from the benchmark values were analyzed for 1988-93. The ARP for the benchmark in 1989 was 10 percent.

The model is dynamic. When it is shocked, such as by increasing the ARP, changes in both prices and quantities reverberate through the results for several years. Because this pattern exists for all variables in the model, the results described here are the maximum effects in the initial year.

in total corn use would account for 3.3 percentage points of the 5-percent drop in production—mostly in feed, seed, and residual farm use.

Reduced food and industrial use would account for only 0.1 percentage points, and reduced exports for 0.9. The balance of 1.7 percentage points would come from drawing down stocks.

Production of all feed grains would fall 5.3 percent, with the resulting higher prices squeezing farm use and stock levels. Reduced food and industrial use and smaller exports account for only 0.1 and 0.7 percentage points of the output change.

Wheat output would not change, but farm, food, and industrial use of wheat would go up. This would draw down wheat stocks and lower exports. Soybean production, use, exports, and stocks would increase.

Prices Would Rise, Payments Drop

Prices of feed grains respond to changes in the feed grain ARP more than output responds. Corn prices would increase by a maximum of 15 percent if the ARP were raised to 40 percent. Sorghum and barley prices would follow the pattern of corn, climbing to 17 and 28 percent above benchmark levels with a 50-percent feed grain ARP. Soybean prices would drop by 7 percent with the 50-percent ARP.

Direct government payments and budget outlays would fall sharply for all sup-

ported commodities, not just feed grains. With a 50-percent feed grain ARP, total deficiency and farmer-owned reserve storage payments would decline by 80 percent, from over \$8 billion to \$1.6 billion, mostly through savings in the corn program.

For the eight major crops listed earlier, cash receipts would rise less than 1 percent with a feed grain ARP of 40 percent. Corn cash receipts would peak after climbing 4 percent. Sorghum receipts also would go up 4 percent. Soybean cash receipts would decline steadily as ARP's were increased.

Because cash receipts are reported on a calendar-year basis, the increased returns for the 1989/90 marketing year would have been spread over both 1989 and 1990. In addition, cash receipts would not go up as much as the changes in price and output might suggest, because farmers would continue to use some of their own production on the farm, rather than sell it.

Cash receipts for livestock would rise as much as 2 percent in the year following the implementation of the 40-percent ARP, and continue at that level for about 2 more years.

Seed, fertilizer, and pesticide expenditures would decline 2 to 4 percent in the year the feed grain ARP was boosted to 40 percent, but they would rebound to above their earlier level in the second year. Feed expenditures, being of farm origin, would respond to the tightened supplies and greater prices by going up 2 percent in the first year and holding steady through the second year.

The components of farm income would be relatively stable except for government payments. On balance, increasing the feed grain ARP any amount from 5 to 40 percent would cut net farm income by a maximum of 6 percent from the benchmark. [David H. Harrington (202) 786-1520 and J. Michael Price (202) 786-1689] ■

Upcoming Releases From The Agricultural Statistics Board

The following list gives the release dates of the major Agricultural Statistics Board reports that will be issued by the time the next *Agricultural Outlook* comes off press.

March

- 2 Egg Products
Poultry Slaughter
- 6 Dairy Products
- 7 Celery
- 8 Vegetables
- 9 Crop Production
- 14 Potato Stocks
Turkey Hatchery
- 15 Milk Production
- 16 Cattle on Feed
- 19 Livestock Slaughter-Annual
- 20 Catfish
Cold Storage-Annual
- 22 Eggs, Chickens, & Turkeys
Vegetables
- 23 Cold Storage
Livestock Slaughter
Wool & Mohair
- 26 Hop Stocks
- 28 Hatchery-Annual
Peanut Stocks & Processing
- 29 Agricultural Prices
- 30 Prospective Plantings
Grain Stocks
Rice Stocks
Hogs & Pigs

Family Farmers Rebounding, But Face Challenges

This article is based on the 12th annual report to Congress on the status of family farms. The report, "The U.S. Farm Sector as It Enters the 1990's" (AIB 587), can be ordered by calling 1-800-999-6779 (8:30-5:00 ET).—Ed.

U.S. family farmers, as they begin the 1990's, are emerging from the financial difficulties that characterized the mid-1980's. The percentage of farm operator households in the strongest financial condition is increasing, and the percentage of those financially vulnerable has dropped.

While average household income for farm operators lagged behind that of all U.S. households during the early 1980's, the decade closed with farm households ahead of their nonfarm counterparts.

But, a number of challenges face farmers. As agricultural markets continue to become more global, farmers' fortunes are increasingly linked to farming trends and policies around the world. Moreover, the value of the dollar, interest rates, inflation, tax policy, and water quality and a host of other environmental concerns all affect U.S. farmers today to an extent not believed possible 20 years ago.

Almost All U.S. Farms Are Family Owned

About 3 percent of all farms are organized as corporations, and almost all of these are family held. Only 0.3 percent of farms are corporations owned and operated by a unit other than a family. Eighty-seven percent of all farms are owned and operated by a single family. The remainder are operated as multifamily partnerships.

Nonetheless, the 6,000 nonfamily corporate farms account for about 6 percent of farm output. Despite fears that this form of farming is gaining ground, nonfamily corporate farming did not change as a percentage of all farms during 1982-87. This is based on the 1987 Census of Agriculture, the most current of available data.

The long-term structural trends of declining farm numbers and land in farms, coupled with increasing farm size, continued through the 1980's. At 2.1 million, the 1987 farm count was down 6.8 percent from 1982. While fewer in number, very small farms (with less than \$10,000 in gross sales) increased as a proportion of all farms during the 1980's.



The number of farms with \$10,000 to \$100,000 gross sales decreased in both absolute and relative terms. The proportion of large commercial farms, which produce the bulk of U.S. food and fiber, continued to increase. These trends show little prospect of changing soon.

For over half a century, the federal government has managed the supply or supported the price of major agricultural commodities. The government's actions were confounded during the 1980's by dramatic declines in world prices and drops in the U.S. shares of world commodity markets.

During the 1980's, between \$2 and \$20 billion was transferred annually from taxpayers to farmers who grew wheat, rice, feed grains, cotton, and other program crops. These amounts include both direct payments to producers and net CCC loans. Payments represented 1 to 13 percent of total annual U.S. gross cash farm income during the decade.

Not All Participate In Federal Programs

Most farms do not produce program commodities and, among those that do, not all participate for one reason or another. Nationwide, about one in three farms received some of the \$14.5 billion in direct government payments made in 1988. Participation varies by size and type of farm, and by location. For example, 90 percent of cotton farms reported receiving payments in 1988, while 49 percent of dairy farms reported payments.

Participation is highest among producers in the Northern Plains, Corn Belt, and Lake States. Recipient farms reported average

payments of \$14,300. Farms in the very small group averaged \$2,500 in direct government payments, while those in the largest size group (\$500,000 or more in annual sales) averaged \$68,000.

Ninety percent of the direct payments go to the one-third of producers with sales of \$40,000 or more. About 14 percent of the payments go to the 2 percent of U.S. farms with sales of \$500,000 or more. This reflects a characteristic of federal farm commodity programs present since their genesis in the 1930's; the amount of support is directly related to the quantity of a commodity that a farmer produces, sending the largest support payments to the largest producers.

Government payments helped participating farm families stabilize their financial situation during the financial stress and debt restructuring of the 1980's.

The need for farmers to master the technical aspects of farm production and marketing and farm programs has been obvious for years. Competitive farmers know about new bio-research products coming on line. They understand commodity programs and know how to use them. The most sophisticated carefully watch the commodity markets, looking for the best time to sell.

What is new is the extent to which farmers must also stay abreast of the larger economic, environmental, and scientific worlds in which they are increasingly required to operate. Farmers' well-being more and more is influenced by factors beyond their control.

External Events Added to Farm Crisis

Farmers' financial problems in the early and mid-1980's can be traced partly to macroeconomic developments that had little to do directly with the agricultural sector. An abrupt tightening of national monetary policy to stem inflation and the large budget deficits run by the federal government pushed real interest rates to historic highs in the early 1980's.

Interest-sensitive farmland prices dropped, and many debt-burdened farmers not only lacked the income to meet their financial obligations but also no longer had sufficient collateral against that debt. Farmers' financial problems soon ricocheted into their financial institutions.

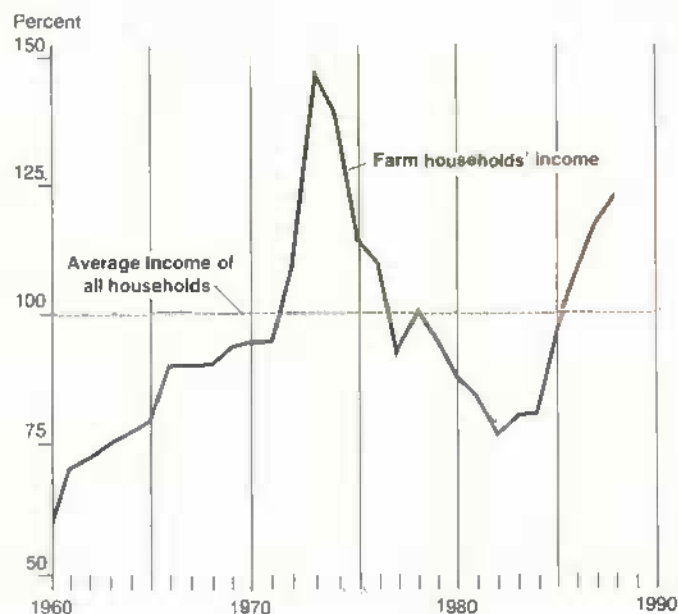
But part of the crisis reflected the fact that analysts and farmers severely underestimated how quickly and by how much the world's producers could respond to the higher prices of the early 1970's. During the 1970's, global wheat production jumped by more than 41 percent. Rice output swelled nearly 27 percent, and coarse grain production went up about 29 percent. Even with prices falling in the first half of the 1980's, world grain output rose nearly 15 percent. These price movements dashed farmers' expectations, formed in the early 1970's, of ever-rising profits.

Moreover, historically high dollar exchange values in the early 1980's encouraged more U.S. agricultural imports, caused a loss

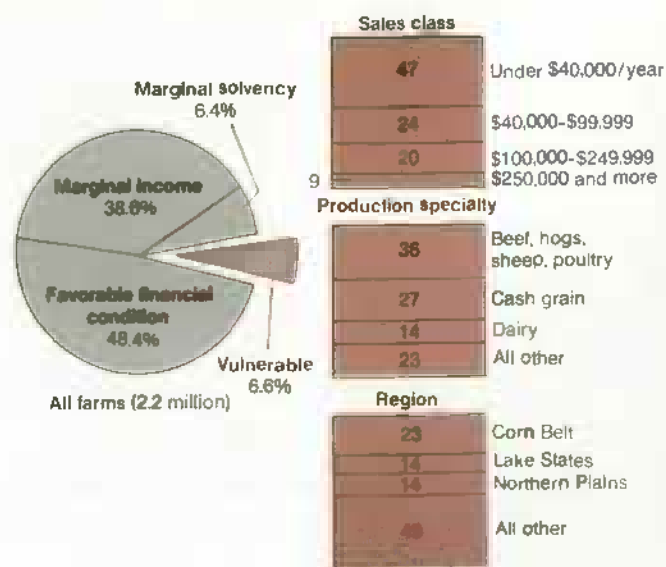
in the U.S. share of world markets, and so pushed down commodity prices. Caught with relatively high support prices mandated by the 1981 farm bill, the government saw outlays to farmers jump.

Roughly a third of farmers had leveraged themselves heavily by taking on debt to finance expansion in the 1970's. As the 1980's

Farm Household Income Is
Pulling Ahead of National Average



Most Stressed: Farms in Smallest Sales Class,
Nondairy Livestock Operations, & Corn Belt Farms



Percentages as of January 1, 1989.

progressed these were the farmers who had to go through restructuring, and some went out of business. Now, most of this adjustment process is complete.

New Financial Environment Emerged

In 1985, governments of the major developed nations signed an agreement, the Plaza Accord, that signaled a willingness to help bring down the high value of the dollar by altering their domestic monetary and fiscal policies. At the same time, the passage of the Gramm-Rudman-Hollings deficit reduction act showed that U.S. policymakers were ready to bring down the federal budget deficit. And the U.S. government rescued the ailing Farm Credit System.

During the 1980's, commercial banks were deregulated. Buffeted by collapsing farmland and oil prices, more than a thousand small banks went out of business; many of those that disappeared had specialized in agricultural lending. The savings and loan crisis has decimated the industry, and many analysts believe that the

restructuring will limit credit availability in both rural and urban areas of some regions.

So, a new financial environment has emerged out of the turmoil of the 1980's. In a narrow sense, both farmers and agricultural lenders are now more cautious in taking on and extending credit.

In a larger sense, the 1980's have demonstrated how much the finances of the agricultural sector are tied to national fiscal and monetary developments and national financial markets. Farmers now must compete with borrowers in other industries to get funds to expand or meet operating needs.

Tax Changes Limit Investment

Recent sweeping changes in tax policy, initiated for reasons having little to do with agriculture, nevertheless have significantly affected both investment in farming and the distribution of income tax liabilities among farmers. For many years, federal income tax provisions encouraged both farmers and nonfarm investors to invest in farming to shelter their income from other sources.

Most Farms Owned by Families or Individuals, Not Corporations

	Individual or family	Partnership	Family- held corporation	Nonfamily corporation	Total*
Number of farms (1,000)	1,809	200	6	6	2,088
Share of total (percent)	86.7	9.6	2.9	0.3	100
Land in farms (percent)	65.1	15.9	11.0	1.4	100
Market value of ag products sold:					
Total sales (percent)	56.3	17.2	19.5	6.1	100
Average farm (\$1,000)	42.3	116.7	436.9	1,341.4	65.2
Farms selling (percent)	100	100	100	100	100
Less than \$10,000	52.4	31.9	15.5	19.6	49.2
\$10,000-\$49,999	26.2	28.5	17.1	18.0	26.1
\$50,000-\$99,999	10.1	13.1	13.3	10.1	10.4
\$100,000-\$249,999	8.5	15.8	24.1	16.8	9.7
\$250,000-\$499,999	2.1	6.7	15.1	10.6	2.9
\$500,000 or more	0.7	3.9	15.0	24.8	1.5

*Includes cooperative, estate or trust, and institutional farms not elsewhere classified.

Source: 1987 Census of Agriculture.

Farm Operator Households Fared Better in the Late 1980's 1/

Year	Favorable finances 2/	Marginal income 3/	Marginal solvency 4/	Financially vulnerable 5/
	Percent			
1984	41.4	39.6	6.9	12.1
1985	45.4	33.3	10.1	11.2
1986	47.4	31.0	11.1	10.5
1987	51.7	33.4	8.1	6.8
1988	49.1	37.3	6.6	7.0

1/ Based on net cash household income, which considers all sources of income and expenses accruing to the farm operator household. 2/ Favorable: positive income and a debt/asset ratio of less than 40 percent. 3/ Marginal income: low debt but negative income. 4/ Marginal solvency: high debt (debt/asset ratio above 40 percent) and positive income. 5/ Vulnerable: high debt and negative income.

The tax provisions encouraged expanding agricultural production for noneconomic reasons, and put downward pressure on commodity prices. While the amount of these tax-motivated investments is uncertain, farm tax losses were prevalent throughout the period.

From the early 1970's to the early 1980's, the share of farm sole proprietorships reporting losses for tax purposes increased from one-third to two-thirds, with the net business loss exceeding \$10 billion in some years.

The Tax Reform Act of 1986, a comprehensive overhaul of the federal income tax system, eliminated or scaled back many of the provisions that encouraged tax sheltering in agriculture. Now, investment decisions in agriculture are based more on expected economic returns. For some farm commodities, this should mean reduced investment, lower production, and higher commodity prices.

Other provisions in the 1986 tax law—such as reductions in marginal tax rates, elimination of the capital gains exclusion, the investment tax credit, and new restrictions on cash accounting practices—caused a shift in the distribution of federal income taxes paid by farm sole proprietors.

Now, larger producers pay more. Prior to the Tax Reform Act, farmers with over \$100,000 in gross sales, roughly 9 percent of all farm sole proprietors, paid an estimated 13.8 percent of the federal income taxes for farm sole proprietors. After the Tax Reform Act, this share increased to an estimated 16.5 percent.

Trade Role Will Be Critical

Last year, 15-20 percent of U.S. output from the farmgate was sold abroad. But world commodity markets are increasingly distorted as more countries adopt import restrictions and export subsidies to facilitate their own domestic farm policies.

These protectionist policies, both in the U.S. and abroad, carry the risk of escalating conflict and uncertainty in world markets, as participants attempt to transfer to others the costs of maintaining or adjusting domestic policies. For the U.S., the resulting instability lends itself to boom-or-bust years in which the economic well-being of less competitive farmers depends critically on U.S. taxpayers' willingness to support domestic farm programs.

The current GATT trade negotiations recognize for the first time that the relationship between domestic agricultural policies and agricultural trade policies is a legitimate subject for negotiation.

In a liberalized trading environment, U.S. farmers' incomes would hinge more on world market forces than on government programs that at times encourage excess output. And, in a world where agricultural markets are less distorted by protectionist policies, U.S. farmers could realize more opportunities to compete.

Farm-Dependent Areas at Stake

Public policies that influence the U.S. farm sector also indirectly affect the 514 U.S. counties where farming dominates the economy—less than a fifth of all U.S. counties. These counties, where at least 20 percent of total labor and proprietor income is from farming, are predominantly in the sparsely settled Plains and western Corn Belt and were the most affected by the eighties farm financial contraction.

These counties remain vulnerable because they are dominated by commodities most susceptible to fluctuations in international trade, such as wheat and corn. And they lack the industrial diversity that can cushion local economies from fluctuations in a primary industry.

Most farming-dependent counties have experienced low population growth or actual declines in population. In some, the population peaked at the turn of the century and has been receding ever since. Because of the specialization in federal program commodities, farmers in farming-dependent counties rely more on government support than do farmers in other areas.

Further farm consolidation into the 1990's will make population retention even more difficult in many of these counties, unless nonfarm jobs can be expanded to help offset job losses in farming. Some farming-dependent communities will have difficulty furnishing the services necessary to maintain a community identity. This portends further community consolidation, particularly in the Great Plains.

Elsewhere, in the majority of rural communities, farming is no longer the cornerstone of the local economy. Farming is still present, but its economic influence has been eclipsed by manufacturing and other activities.

While some observers point out that farm input dealers and processing businesses in local communities depend on the well-being of the local farm sector, this argument is tempered by the fact that much farm input and processing employment now is based in metropolitan areas.

Thus, those who argue that keeping the farm sector strong will preserve rural America must realize that this now applies to only a few rural places, and among a very small part of the rural population. Farm policy is not synonymous with rural policy. [Sara Mazie and Tom Carlin (202) 786-1527] ■

Liberalizing World Trade in Meats

This is the sixth in a series summarizing research on what could happen if negotiations under the General Agreement on Tariffs and Trade (GATT) led to totally free agricultural trade in industrial market economies. Negotiators at the April 1989 review of the Uruguay round agreed to "substantial progressive reductions in agricultural support and protection over an agreed period of time, resulting in correcting and preventing restrictions and distortions in world agricultural markets."

While there are adjustment costs, both theory and research results suggest that the benefits of free trade outweigh the costs. But because there never has been free trade in agriculture, the findings in these articles are, of necessity, speculative. The results here come from research conducted by the Economic Research Service, universities, and international organizations. Longer, in-depth reports lie behind the articles, and will be available from the authors.—Ed.

Most of the changes in global beef, pork, and poultry markets that would flow from phasing down world-wide government support and protection of agriculture would come indirectly from changes in feed and dairy markets. Globally, only soybean growers now get less direct support than meat producers, although government intervention in meat markets is high in several countries.

As trade liberalization progressed, global meat production would not change significantly, as increases in some countries would offset declines in others. In the U.S., meat output would expand as prices rose slightly in response to greater domestic and export demand. Grain-fed beef output would rise relative to grass-fed.

Beef output would rise in Australia, Brazil, and Argentina, while pork production would go up in South Korea and Taiwan. Farmers in Thailand and Brazil would raise and export more poultry. Less meat would be produced and more imported in Japan and the EC.

World trade in meats would increase slightly as countries loosened trade barriers. The five regions most active in international meat markets would continue to dominate; they currently account for over three-quarters of the world's meat trade.

In part because meat is highly perishable, international trading requires a fairly well developed infrastructure. So, the major players in the world's markets are a small number of higher income countries. Nonetheless, significant quantities of low-priced poultry meat flow to lower income countries.

By restricting supplies, government protection often drives a wedge between consumer prices and the prices which would



exist under free trade. In general, consumer prices for most meat products freely traded would drift downward, and international trading prices would go up slightly as support and protection were phased down. But differences in quality, consumer tastes, and food safety regulations could limit price impacts on some meats in some countries.

In the EC and Japan, where meat producers are heavily protected, the per unit revenues received by growers would drop. U.S. producer prices likely would go up slightly because of greater export demand for all U.S. meat, and lower imports of pork. Even though the cost of some feed grains would rise, returns to U.S. meat producers should go up slightly.

Health Regs, Quality, & Taste Govern Trade Flows

Aside from the basic differences among the animal products, meat trade is further distinguished by sanitary and phytosanitary restrictions. For example, red meat from areas where foot and mouth disease (FMD) is endemic cannot be shipped to FMD-free areas (Australia, New Zealand, Japan, Taiwan, South Korea, Denmark, Ireland, Great Britain, and North and Central America) unless it is cooked and sealed in airtight containers.

Although GATT contracting parties are working to establish guidelines and standards to harmonize animal health regulations, it is premature to assume that the FMD regulations will change. In mid-February, the U.S. called for a major international veterinary organization to establish a work program that would develop guidelines on FMD trade restrictions. The guidelines likely will depend on determining what is an acceptable risk to animal health.

Major Beef Trade Flows



Quality and consumer tastes also help shape meat trade. Pork tends to be fattier in Eastern Europe, the Soviet Union, and China. This meat is less desired in the EC and the U.S., limiting trade between the two groups.

Beef can be either grain-fed, as is most common in North America and Japan, or grass-fed, as in most of the rest of the world. Grain-fed beef has more fat marbling. Reflecting these differences, the U.S. is the largest beef importer, using imported grass-fed beef for hamburger, and concurrently the sixth largest exporter, shipping grain-fed beef to Japan and supplying the hotel, restaurant, and institutional market in the rest of the world.

Meat Producers Receive Less Subsidies

As measured by producer subsidy equivalents (PSE's) for 1982-86, government support for meat producers worldwide accounted for about 21 percent of their revenues. Government support was responsible for about 31 percent of beef producers' revenues, 19 percent of poultry growers', and 14 percent of pork producers'.

PSE's, a means of comparing commodity subsidies and trade barriers across nations, are defined as the income subsidy that would be needed to compensate producers for removing support provided through government programs and policies. For compari-

son, food grain producers received about 34 percent of their revenue through government supports during 1982-86, and dairy producers received 56 percent.

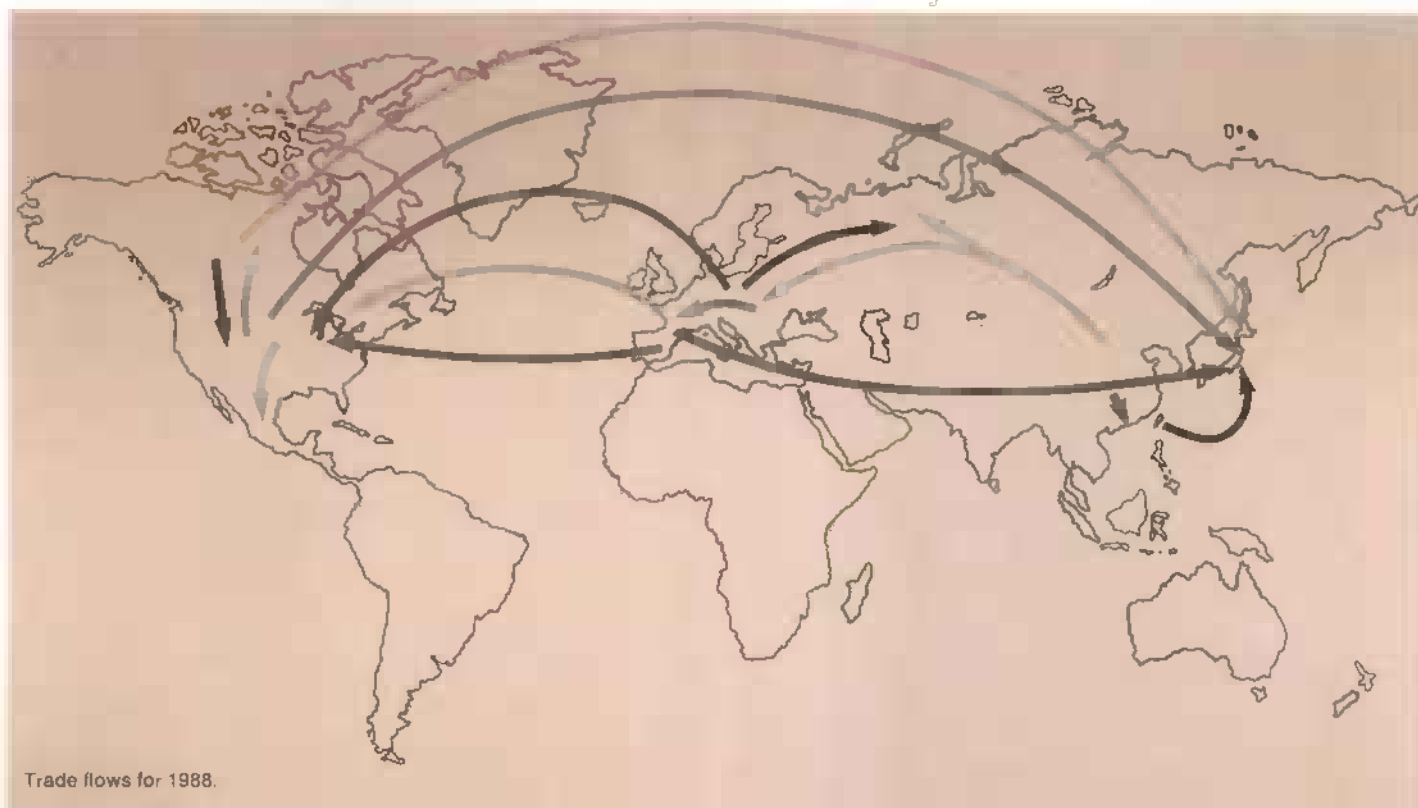
Most countries subsidize producers through either price or income supports. Even in those countries where there is little direct intervention, government policies in the grain sector most often spill over into the meat sector. However, Korea's pork and Argentina's and Brazil's beef producers and exporters are actually taxed to subsidize consumers.

Canada offers direct payments to pork and beef producers and sets poultry prices, maintained by regional output quotas. Policies subsidizing grain shipments to feed-deficit regions in the eastern provinces encourage meat production there.

Although there is no direct price support program for meat in the U.S., government intervention has an impact throughout the meat sector. Grain and protein meals are the largest per-unit inputs in meat production; expectations of feed costs play a major role in producer decisions. In addition, government studies indicate that the cost of the federal grazing program exceeds the revenues received.

Canada and the U.S. have several border measures which provide protection to meat producers. Beef imports on both sides are covered by both tariffs and nontariff barriers. U.S. pork and hog imports from Canada are subject to a countervailing duty estab-

Major Pork Trade Flows



lished to offset the effects of Canadian government programs. U.S. poultry exports are aided to varying degrees by the Export Enhancement Program, while Canadian poultry imports are restricted by a quota.

The Australian and New Zealand governments currently offer no direct support to beef producers. Although New Zealand has a history of government intervention, these supports were largely eliminated in the early 1980's. Both countries offer promotion services. However, the Australian Meat and Livestock Corporation intervenes in the slaughter and processing industry by distributing foreign export quota markets among beef packers.

EC and Japan Protect Producers the Most

Both the EC and Japan protect their producers by establishing intervention prices and restricting imports with either tariffs or quotas. In both, much of the beef production is an offshoot of dairy production, and so heavily influenced by dairy policy. Dairy policies often encourage milk production, boosting the size of the cattle herd and increasing the supply of beef.

In the EC, price support levels are based on the costs of producing a commodity, while variable import levies are calculated to force imports to enter the EC at prices slightly above the cost of domestic production. To maintain prices during periods of overproduction, the EC has storage provisions and offers export subsidies to permit EC producers to compete at world prices.

Japanese intervention follows much the same path as that of the EC, but without tariffs on feed imports. Beef imports have been restricted by a quota and also by a 25-percent tariff. The Livestock Industry Promotion Corporation (LIPC), a quasi-governmental purchasing agency, administers the majority of the quota to support its domestic price stabilization programs.

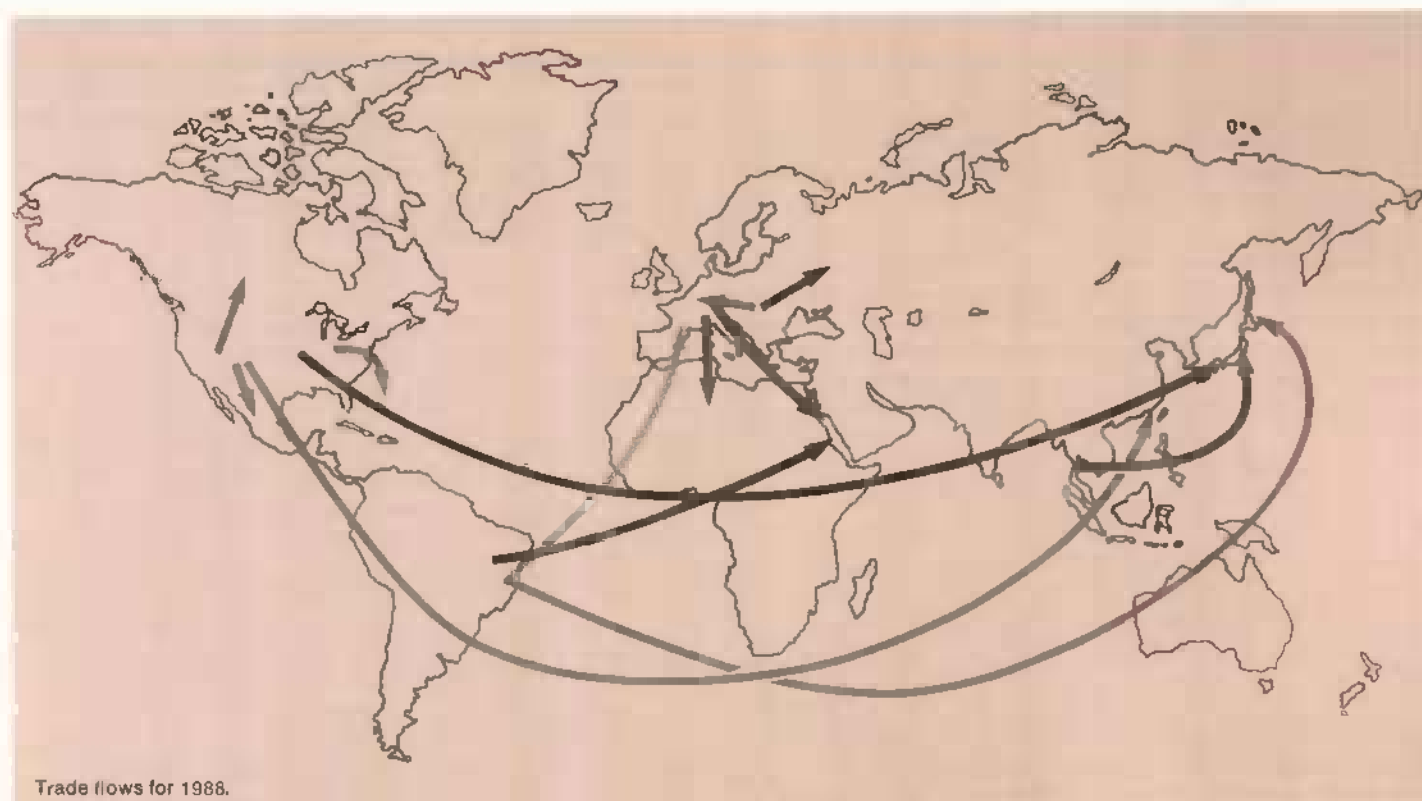
However, under the 1988 U.S.-Japanese Agreement on Beef and Citrus, both the quota and the LIPC's involvement with imports are being phased out, to be replaced by a tariff in 1992. This feature of the agreement, proposed by the U.S., is an example of "tariffication"—conversion of a nontariff barrier to a tariff. Tariffication plays a key role in the U.S. trade liberalization proposal at the GATT (see the December 1989 *Agricultural Outlook*).

Japanese pork and poultry imports are currently protected by tariffs. Pork import prices are keyed off the midpoint of the price stabilization levels established by the LIPC. Imported pork cuts of higher and lower value are blended by the trader to meet that stated import price minus a 5-percent tariff. Japan applies a tariff of 10-12 percent to poultry imports.

North American Output, Trade Would Rise

U.S. beef, pork, and poultry producers would be faced with slightly higher grain costs under trade liberalization, which could

Major Poultry Trade Flows



Trade flows for 1988.

The Evolving Trade Lib Proposals

The GATT proposals put on the table prior to the midterm meeting in Montreal in late 1988 represented a spectrum of approaches to trade reform. They ranged from the U.S. proposal, which called for elimination of all trade-distorting subsidies and trade barriers over 10 years, to the EC proposal, which recommended short-term support cuts and rebalancing support between commodities, but did not address long-term issues.

The trade liberalization research by analysts at the Economic Research Service has examined the impact of completely removing trade-distorting government policies in developed countries.

The ERS commodity-specific studies, which have been covered in *Agricultural Outlook*, are based on this premise. The results of this work are primarily qualitative in nature, and the predicted direction of changes in production, prices, and trading patterns also would be consistent with less-than-complete trade reform. With only partial liberalization, the magnitudes of change would be smaller than those forecast in the studies.

The most recent U.S. proposal, submitted last October, spells out potential categories of government policies affecting agri-

culture more fully than previous U.S. statements. Agricultural programs currently in use are divided into three categories: (1) those to be phased out over a certain period (termed red-light policies), (2) those permitted because they are not tied to production and marketing and are the least trade-distorting (green-light policies), and (3) those to be subject to increased discipline under GATT rules (yellow-light policies).

Important red-light policies include administered pricing systems and output-linked income support programs, and subsidies provided for production and marketing that are not distributed equally to all agricultural producers and processors. In addition, the U.S. is proposing that all countries phase out export subsidies, prohibitions, and restrictions. Nontariff border measures also would be converted to tariffs and then phased out.

The U.S. proposal permits green-light policies that do not disrupt trade and that also fulfill nonagricultural objectives. These policies include income support payments not linked to price or output, environmental programs, disaster assistance and food aid, general services (such as research and education), asset retirement, and nondistorting food reserve programs.

Programs that do not fit into red- or green-light categories are to be disciplined by stronger GATT rules, and could be monitored by an aggregate measure of support.

increase the cost of raising meat. This could be offset by higher meat prices, though, and also by producers' altering feed rations to take advantage of lower oilseed prices. So, U.S. output likely would go up.

Canadian producers would face lower revenues, as support payments, grain transportation subsidies, and poultry import quotas were phased down. As a result, production of all meats probably would drop in Canada.

The structure of red meat production most likely would change as well. Removing Canadian grain transportation subsidies could shift pork and beef production to western Canada. In both countries, a reduction in milk prices likely would continue the trend toward a declining dairy herd. Therefore, the proportion of fed beef output in North America relative to nonfed probably would increase.

In the absence of U.S. nontariff barriers and Canadian beef import quotas, imports of non-fed beef from Australia and New Zealand into North America could increase in response to lower production of manufacturing (dairy) beef. Brazilian and Argentine uncooked beef would remain shut out of North America because both countries are FMD-endemic and can ship only cooked meat packed in airtight containers to FMD-free regions.

The change in the North American pork tariffs would have little impact on pork trade from outside North America, but lower Canadian pork production would push down Canada's exports to the U.S. Regional shifts in Canadian pork production might lead to bilateral trade, with the U.S. exporting to eastern Canada and western Canada exporting to the U.S. West Coast.

U.S. and Canadian pork imports from Denmark would drop as EC export subsidies were phased out, but trade with both the EC and Eastern Europe in niche products (i.e., specialty hams) would continue.

U.S. poultry production likely would continue growing relative to other meats. But, in the absence of border measures and production quotas, Canadian domestic broiler prices would decline to match U.S. prices and Canadian production would drop. Canadian purchases of U.S. poultry would increase if import quotas were phased down. U.S. exports to Japan probably would go up, although the gain could be small if Japan continues to invest in poultry production facilities in countries like Thailand.

EC Production, Exports Would Decline

Production of all meats in the EC likely would decline because of trade liberalization. The impact of trade liberalization on EC beef production would depend on changes in both dairy policies and land values, but the high cost structure and relative inefficiency of dual dairy/beef breeds would result in at least a modest production reduction.

Pork output in the EC would decline. Smaller pork producers, for whom feed is a smaller percentage of total unit costs, would be less cushioned by lower feed prices. Faced with lower pork prices, they likely would consolidate or leave the industry. Larger producers, concentrated in northern Europe, would be constrained from expanding by stringent regulations on animal waste.

EC poultry production probably would decline modestly in response to lower prices. However, the lower prices would be offset to some extent by lower feed prices.

Concurrently, consumer prices of all meats in the EC likely would go down. Domestic consumption would go up, although the increase for each type of meat would depend on changes in relative prices.

Because of lower output and increased demand, EC exports of all meat would decline. Less production would mean a greater percentage of meat moving into domestic channels. Aside from niche markets where EC producers can command a premium price, phasing down export subsidies would make EC meats less competitive in a number of foreign markets.

Phasing down tariffs also would open the EC to more imports. Reduced domestic supplies would offer a market for exports of Eastern European pork along with South American beef to FMD-endemic EC countries. Although increased sales from Eastern Europe would provide those countries with needed foreign exchange, exports would have to be balanced against any domestic shortages.

Japan's Output Would Fall Sharply

Japan's meat production would fall as import constraints were phased down. Meat prices would drop to near world levels and the price for imported feed would increase under trade liberalization. Because Japan's meat producers run small-scale operations that are relatively inefficient, a substantial number would either leave the industry or consolidate.

Imports of all meats would expand dramatically. Japanese businesses have invested in pork production facilities in Taiwan and in poultry facilities in a number of countries. In addition, the Japanese have begun investing in beef operations in Australia and in both beef and pork plants in the U.S.

Japan would import more beef from Australia and the U.S. Currently, Australia exports grass-fed beef to Japan and the U.S. while the U.S. exports high-quality grain-fed beef to Japan. If Australia were able to increase its feeding industry, it could respond to Japanese demand for high-quality beef.

Japan's pork imports would go up as well. Denmark and Taiwan are currently the major suppliers to Japan, but their ability to maintain market shares as Japan's purchases rose would be limited by environmental constraints. The U.S. and Canada are now

Selected Major Producers and Traders of Meat, 1988*

Market and country/region	Production		Imports		Exports	
	Quantity	Market share	Quantity	Market share	Quantity	Market share
	1,000 m. tons	Percent	1,000 m. tons	Percent	1,000 m. tons	Percent
Beef						
U.S.	10,879	24	1,091	37	313	8
Soviet Union	8,465	19	117	4	7	<1
EC-12	7,605	17	515	18	784	19
Argentina	2,610	6	--	--	319	8
Brazil	2,500	6	20	1	540	13
Australia	1,533	3	--	--	890	22
Canada	973	2	154	5	86	2
Japan	569	1	378	13	--	--
New Zealand	562	1	--	--	435	11
Egypt	450	1	150	5	--	--
World	45,304		2,930		4,096	
Pork						
China	20,170	32	--	--	230	11
EC-12	12,504	20	45	3	471	23
U.S.	7,114	11	516	32	88	4
Soviet Union	6,476	10	218	13	5	<1
Poland	1,828	3	6	<1	76	4
Japan	1,578	3	461	28	--	--
E. Germany	1,414	2	7	<1	270	13
Canada	1,188	2	16	1	319	15
Taiwan	911	1	--	--	178	9
Hong Kong	34	<1	223	14	--	--
World	62,164		1,633		2,075	
Poultry						
U.S.	9,428	29	--	--	382	22
EC-12	5,928	18	111	9	411	24
Soviet Union	3,184	9	179	14	1	<1
China	2,400	7	24	2	92	6
Brazil	1,997	6	--	--	240	14
Japan	1,471	5	272	21	--	--
Hungary	465	1	--	--	234	13
Romania	370	1	7	1	125	7
Saudi Arabia	248	1	194	15	3	<1
Hong Kong	35	<1	153	12	27	2
World	32,628		1,274		1,747	

*Excluding intra-EC trade.

Source: Foreign Agricultural Service, USDA.

PSE's for Meat: EC, Japan, South Korea Highest*

Country/Region	Beef	Pork	Poultry
		Percent	
Australia	6.4	--	--
Brazil	-33.1	--	6.2
Canada	9.9	10.7	16.7
EC-10	44.6	15.1	28.7
Japan	59.0	47.5	22.6
New Zealand	12.1	--	--
South Korea	66.4	-1.2	41.5
Taiwan	18.4	1.9	23.4
U.S.	8.7	5.8	8.3

*1982-86 average. A PSE is the ratio of total government transfers to farm revenues (including direct payments). A negative PSE means that, on balance, a government taxes its producers.

the third and fourth largest suppliers to Japan; each could increase its market share if processors were willing to meet Japanese cutting specifications.

Thailand probably would garner the major portion of increased Japanese demand for poultry imports. Fueled by substantial multinational investment, the Thai poultry industry's production and exports have grown rapidly. Moreover, Thailand's low labor costs have given it an advantage in producing deboned chicken, an item highly prized in Japan.

Both Australia and New Zealand likely would benefit from more vigorous U.S. and Japanese meat demand. However, in both countries beef competes with sheep for rangeland, so changes in production would also depend on changes in the price of beef relative to wool. [Shayle Shagam (202) 786-1767, Stephanie Mercier (202) 786-1840, William Hahn (202) 786-1712, Lee Christensen (202) 786-1714, and Larry Witucki (202) 786-1714] ■

Statistical Indicators

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1989					1990				
	I	II	III	IV F	Annual F	I F	II F	III F	Annual F	
Prices received by farmers (1977=100)	150	148	145	147	148	144	140	—	137	
Livestock & products	159	158	159	168	160	181	154	—	150	
Crops	140	141	130	128	135	128	126	—	122	
Prices paid by farmers, (1977=100)										
Production items	164	166	166	165	165	—	—	—	163	
Commodities & services, interest, taxes, & wages	175	177	178	178	177	—	—	—	180	
Cash receipts (\$ bil.) 1/	156	161	170	145	158	164	166	—	160-183	
Livestock (\$ bil.)	84	81	81	84	83	89	79	—	80-83	
Crops (\$ bil.)	71	80	88	61	75	74	86	—	77-80	
Market basket (1982-84=100)										
Retail cost	122	124	125	127	125	—	—	—	—	
Farm value	107	108	107	108	107	—	—	—	—	
Spread	131	133	135	137	134	—	—	—	—	
Farm value/retail cost (%)	30	30	30	30	30	—	—	—	—	
Retail prices (1982-84=100)										
Food	123	125	128	127	125	—	—	—	—	
At home	122	124	125	126	124	—	—	—	—	
Away from home	125	127	128	130	127	—	—	—	—	
Agricultural exports (\$ bil.) 2/	10.9	9.8	8.8	10.0	39.7	10.5	8.8	8.8	38.0	
Agricultural imports (\$ bil.) 2/	5.8	5.5	5.0	5.2	21.5	5.7	5.3	4.8	21.0	
Commercial production										
Red meat (mil. lb.)	9,594	9,870	9,847	10,106	39,417	9,680	9,842	9,920	39,595	
Poultry (mil. lb.)	5,070	5,539	5,704	5,725	22,037	5,555	5,940	6,020	23,420	
Eggs (mil. doz.)	1,389	1,394	1,389	1,414	5,588	1,400	1,410	1,420	5,700	
Milk (bil. lb.)	36.8	38.0	35.5	35.2	145.3	36.6	38.8	36.7	148.1	
Consumption, per capita										
Red meat and poultry (lb.)	52.8	54.5	55.2	57.5	220.0	53.7	55.1	55.9	222.5	
Corn beginning stocks (mil. bu.) 3/	7,071.6	5,203.9	3,419.0	1,930.0	4,259.1	7,079.1	—	—	1,930.4	
Corn use (mil. bu.) 3/	1,868.3	1,785.8	1,489.3	2,378.9	7,522.3	—	—	—	—	
Prices 4/										
Choice steers—Omaha (\$/cwt)	73.67	73.85	70.09	72.46	72.52	74-78	70-76	68-74	71-77	
Barrows & gilts—7 mths. (\$/cwt)	40.78	41.84	46.07	47.42	44.03	48-50	50-56	49-55	47-53	
Broilers—12-city (cts./lb.)	59.4	67.1	59.7	49.8	59.0	49-53	50-56	52-58	49-55	
Eggs—NY gr. A large (cts./doz.)	78.4	75.2	81.5	92.8	81.9	83-87	74-80	62-68	69-75	
Milk—all at plant (\$/cwt)	13.07	12.27	13.27	15.43	13.51	14.35-15.35	11.15-12.15	10.90-11.90	12.00-13.00	
Wheat—KC HRW ordinary (\$/bu.)	4.34	4.44	4.31	4.34	4.35	—	—	—	—	
Corn—Chicago (\$/bu.)	2.72	2.78	2.49	2.38	2.55	—	—	—	—	
Soybeans—Chicago (\$/bu.)	7.63	7.39	8.71	5.70	6.70	—	—	—	—	
Cotton—Avg. spot mkt. (cts./lb.)	56.2	63.1	68.6	67.1	63.74	—	—	—	—	
	1982	1983	1984	1985	1986	1987	1988	1989	1990 F	
Gross cash income (\$ bil.)	150.6	150.4	155.3	156.9	152.5	162.0	171.6	174	173-178	
Gross cash expenses (\$ bil.)	112.8	113.5	118.6	110.2	100.7	107.5	114.4	121	119-122	
Net cash income (\$ bil.)	37.8	36.9	38.7	46.7	51.8	54.5	57.2	53	52-57	
Net farm income (\$ bil.)	23.5	12.7	32.2	32.4	38.0	43.8	42.7	48	44-49	
Farm real estate values 5/										
Nominal (\$ per acre)	823	788	801	713	640	599	632	667	705-720	
Real (1977 \$)	513	472	459	395	348	317	322	325	328-334	

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.-Sept. fiscal years ending with year indicated. 3/ Dec.-Feb. first quarter; Mar.-May second quarter; June-Aug. third quarter; Sept.-Nov. fourth quarter; Sept.-Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages. 5/ 1981 & 1986-89 values as of February 1. 1982-85 values as of April 1. F = forecast, — = not available.

U.S. and Foreign Economic Data

Table 2.—U.S. Gross National Product & Related Data

	Annual			1988,	1989			
	1987	1988	1989 P	IV	I	II	III	IV P
\$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	4,524.3	4,880.6	5,233.2	5,017.3	5,113.1	5,201.7	5,281.0	5,337.0
Personal consumption expenditures	3,010.8	3,235.1	3,470.3	3,324.0	3,381.4	3,444.1	3,508.1	3,547.5
Durable goods	421.0	455.2	473.8	467.4	468.4	471.0	480.1	471.0
Nondurable goods	998.1	1,052.3	1,122.6	1,078.4	1,088.3	1,121.5	1,131.4	1,139.1
Clothing & shoes	177.2	186.8	199.9	193.9	185.0	198.9	202.2	203.7
Food & beverages	529.2	559.7	595.0	574.1	587.3	592.2	598.1	602.2
Services	1,591.7	1,727.6	1,874.1	1,778.2	1,816.7	1,851.7	1,890.6	1,937.5
Gross private domestic investment	699.9	750.3	777.1	752.8	769.6	775.0	779.1	784.8
Fixed investment	670.6	719.6	747.7	734.1	742.0	747.6	751.7	749.6
Change in business inventories	29.3	30.6	29.4	18.7	27.7	27.4	27.4	35.2
Net exports of goods & services	-112.6	-73.7	-50.9	-70.8	-54.0	-50.6	-45.1	-53.8
Government purchases of goods & services	926.1	988.9	1,036.7	1,011.4	1,016.0	1,033.2	1,038.9	1,058.6
1982 \$ billion (quarterly data seasonally adjusted at annual rates)								
Gross national product	3,853.7	4,024.4	4,142.6	4,069.4	4,106.8	4,132.5	4,162.9	4,168.1
Personal consumption expenditures	2,513.7	2,598.4	2,668.5	2,627.7	2,641.0	2,653.7	2,690.1	2,689.3
Durable goods	389.6	413.6	425.6	420.5	419.3	424.8	436.4	421.6
Nondurable goods	890.4	904.5	915.7	912.0	915.0	909.7	920.8	917.5
Clothing & shoes	159.6	161.3	168.8	164.8	165.0	165.8	173.3	171.0
Food & beverages	452.7	460.0	462.9	462.1	466.0	461.4	463.2	460.7
Services	1,233.7	1,280.2	1,327.2	1,295.2	1,306.7	1,319.0	1,332.9	1,350.3
Gross Private domestic investment	674.0	715.8	724.5	709.1	721.1	719.8	724.6	732.7
Fixed investment	650.3	687.9	700.0	690.8	696.6	700.7	702.7	700.1
Change in business inventories	23.7	27.9	24.5	18.3	24.5	19.1	21.9	32.8
Net exports of goods & services	-115.7	-74.9	-56.3	-73.8	-55.0	-51.2	-67.1	-61.8
Government purchases of goods & services	781.8	785.1	805.8	806.4	799.7	810.3	805.3	807.9
GNP implicit price deflator (% change)	3.2	3.3	4.1	4.7	4.0	4.6	3.2	3.5
Disposable personal income (\$ bil.)	3,205.9	3,477.8	3,780.0	3,587.4	3,689.5	3,747.7	3,806.8	3,875.9
Disposable per. income (1982 \$ bil.)	2,676.6	2,793.2	2,906.7	2,835.9	2,881.7	2,887.6	2,919.2	2,938.3
Per capita disposable per. income (\$)	13,140	14,116	15,191	14,504	14,884	15,084	15,280	15,614
Per capita dis. per. income (1982 \$)	10,970	11,337	11,681	11,466	11,625	11,622	11,717	11,761
U.S. population, total, incl. military abroad (mil.)	243.9	246.4	248.8	247.3	247.9	248.5	249.1	249.8
Civilian population (mil.)	241.7	244.1	246.6	245.1	245.7	246.2	246.9	247.4
	Annual			1988	1989			
	1987	1988	1989 P	Dec	Sept	Oct	Nov	Dec P
Industrial production (1977=100)	129.8	137.2	141.8	140.4	142.3	141.8	142.3	142.8
Leading economic indicators (1982=100)	140.1	142.8	144.9	145.1	145.2	144.5	144.8	145.7
Civilian employment (mil. persons)	112.4	115.0	117.3	116.0	117.5	117.6	117.8	117.9
Civilian unemployment rate (%)	6.1	5.4	5.2	5.3	5.3	5.2	5.3	5.2
Personal income (\$ bil., annual rate)	3,777.6	4,064.5	4,428.7	4,206.3	4,469.7	4,505.5	4,548.0	4,569.2
Money stock—M2 (daily avg.) (\$ bil.) 1/	2,909.9	3,069.6	3,216.4	3,089.6	3,153.5	3,173.3	3,195.7	3,216.4
Three-month Treasury bill rate (%)	5.82	6.69	8.12	8.09	7.72	7.63	7.65	7.64
AAA corporate bond yield (Moody's) (%)	9.38	9.71	9.26	9.57	9.01	8.92	8.89	8.86
Housing starts (1,000) 2/	1,821	1,488	1,374	1,577	1,264	1,423	1,342	1,235
Auto sales at retail, total (mil.)	10.3	10.6	9.9	11.4	10.7	8.8	8.5	—
Business inventory/sales ratio	1.51	1.50	—	1.49	1.51	1.53	1.52	—
Sales of all retail stores (\$ bil.)	152.1	162.9	171.1	139.1	145.2	143.4	144.1	P 144.4
Nondurable goods stores (\$ bil.)	94.9	100.1	106.2	85.0	90.0	89.4	90.2	P 90.7
Food stores (\$ bil.)	31.5	33.2	35.5	28.0	30.2	30.0	30.1	P 30.3
Eating & drinking places (\$ bil.)	14.8	15.8	16.5	13.6	14.0	13.8	13.9	P 13.8
Apparel & accessory stores (\$ bil.)	7.8	8.2	8.8	7.1	7.5	7.4	7.5	P 7.5

1/ Annual data as of December of the year listed. 2/ Private, including farm. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 786-3313.

Table 3.—Foreign Economic Growth, Inflation, & Export Earnings

	1981	1982	1983	1984	1985	1986	1987	1988	1989 P	1990 F	1991 F	Average 1980-89
	Annual percent change											
World, less U.S.												
Real GDP	1.5	0.6	2.0	4.5	3.6	3.0	3.6	4.3	3.7	3.4	3.6	2.9
Consumer prices	15.0	13.7	14.3	11.8	11.3	8.1	10.1	14.7	20.9	17.6	8.1	13.6
Merch. exports	-2.7	-6.7	-2.7	5.7	1.9	10.9	18.4	13.3	7.9	8.2	10.2	6.8
Developed less U.S.												
Real GDP	1.2	0.2	2.2	4.6	3.5	2.7	3.4	4.2	3.6	2.9	3.1	2.8
Consumer prices	10.0	7.8	5.8	4.7	4.2	2.5	2.8	3.1	4.4	3.5	3.3	5.7
Merch. exports	-3.2	-4.4	-0.5	6.9	4.8	19.5	17.7	12.5	6.4	9.5	10.5	7.6
Developing												
Real GNP	2.0	1.8	1.5	4.0	3.8	3.7	4.5	3.7	3.9	4.2	5.3	3.4
Consumer prices	28.4	30.0	39.5	35.1	35.3	27.0	35.8	58.3	57.7	49.5	18.9	37.5
Merch. exports	-1.8	-10.4	-6.5	4.5	-3.1	-5.9	20.2	15.3	12.1	6.0	10.0	5.0
Asia, incl. China												
Real GDP	6.1	5.5	7.7	7.3	7.0	6.1	7.0	9.2	5.5	5.4	7.2	6.7
Consumer prices	9.3	5.8	6.2	8.7	7.2	6.3	7.4	11.9	9.9	8.2	10.4	8.3
Merch. exports	7.6	-0.5	4.8	14.6	-0.9	9.4	29.4	23.1	13.0	9.1	11.1	12.8
Latin America												
Real GDP	-0.4	-1.5	-2.6	3.3	3.4	3.6	3.1	1.0	0.5	3.4	5.7	1.6
Consumer prices	60.1	73.8	118.9	116.5	127.7	82.4	116.3	212.2	340.4	304.3	81.2	130.3
Merch. exports	6.5	-10.8	-1.0	6.8	-7.6	-14.5	9.1	17.0	10.4	-0.7	3.7	4.6
Africa												
Real GDP	-1.9	0.6	0.0	-0.3	3.9	-1.0	1.3	2.2	2.5	1.7	2.4	1.6
Consumer prices	23.4	14.1	19.7	19.1	11.9	12.6	12.3	15.7	16.8	14.8	13.1	16.0
Merch. exports	-19.7	-9.1	-8.0	3.4	1.0	-22.1	18.8	-3.6	7.8	-2.5	5.2	0.3
Middle East												
Real GDP	2.7	3.7	0.5	1.0	-1.8	2.0	1.5	1.4	6.9	4.0	4.1	1.8
Consumer prices	16.8	14.0	14.5	19.6	13.8	10.9	12.9	19.6	21.4	18.0	17.8	16.1
Merch. exports	-3.8	-21.1	-22.2	-10.5	-6.8	-19.2	18.0	0.9	31.2	-2.6	12.4	-1.3
Eastern Europe, incl. USSR												
Real GDP	—	—	—	—	—	—	1.1	2.8	1.3	1.2	1.9	1.7
Consumer prices	—	—	—	—	—	—	—	—	—	—	—	—
Merch. exports	—	—	—	—	-8.1	-3.2	12.8	7.9	1.8	3.5	10.4	2.2

P = preliminary. F = forecast. — = not available.

Information contact: Alberto Jerardo, (202) 786-1705.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1989							1990
	1987	1988	1989	Jan	July	Aug	Sept	Oct	Nov	Dec R	Jan P
	1977=100										
Prices received											
All farm products	127	138	147	149	147	145	143	145	147	149	153
All crops	108	127	134	141	137	128	126	128	128	127	135
Food grains	103	138	158	160	153	152	151	152	150	153	154
Feed grains & hay	85	120	128	137	126	120	120	118	118	119	118
Feed grains	81	117	123	133	122	116	114	112	113	114	113
Cotton	99	95	98	90	98	99	106	109	108	102	99
Tobacco	133	138	136	128	143	142	148	146	144	144	144
Oil-bearing crops	79	108	102	116	105	84	89	87	89	90	90
Fruit, all	182	184	190	183	178	182	199	208	208	182	165
Fresh market 1/	196	196	200	192	185	190	210	221	219	188	168
Commercial vegetables	148	144	158	189	168	140	133	143	139	149	250
Fresh market	147	137	146	186	165	131	121	132	128	134	242
Potatoes & dry beans	120	124	187	186	261	194	137	136	168	178	188
Livestock & products	146	150	160	158	157	161	160	162	165	170	170
Meat animals	163	168	174	174	174	177	172	174	175	180	180
Dairy products	129	126	139	138	130	136	144	151	160	166	166
Poultry & eggs	107	118	138	129	138	139	139	129	134	138	139
Prices paid											
Commodities & services,											
Interest, taxes, & wage rates	162	169	177	175	178	—	—	178	—	—	180
Production items	147	157	165	164	166	—	—	165	—	—	168
Feed	103	128	135	140	133	—	—	128	—	—	128
Feeder livestock	179	192	194	202	193	—	—	196	—	—	205
Seed	148	150	165	150	170	—	—	170	—	—	170
Fertilizer	118	130	137	133	141	—	—	131	—	—	131
Agricultural chemicals	124	126	132	128	139	—	—	134	—	—	134
Fuels & energy	161	163	160	165	188	—	—	183	—	—	200
Farm & motor supplies	145	148	155	153	155	—	—	155	—	—	158
Autos & trucks	208	215	223	216	225	—	—	225	—	—	225
Tractors & self-propelled machinery	174	181	193	188	192	—	—	199	—	—	199
Other machinery	185	197	208	203	209	—	—	210	—	—	210
Building & fencing	137	138	141	139	141	—	—	143	—	—	143
Farm services & cash rent	146	147	158	158	151	—	—	158	—	—	163
Interest payable per acre on farm real estate deb	189	182	177	177	190	—	—	177	—	—	178
Taxes payable per acre on farm real estate	144	148	152	152	144	—	—	152	—	—	156
Wage rates (seasonally adjusted)	166	171	185	188	191	—	—	179	—	—	179
Production items, interest, taxes, & wage rates	151	160	167	166	167	—	—	166	—	—	169
Ratio, prices received to prices paid (%) 2/	79	82	83	85	83	81	81	81	83	84	85
Prices received (1910-14=100)	579	633	673	683	673	662	656	662	672	681	700
Prices paid, etc. (parity index) (1910-14=100)	1,111	1,165	1,220	1,207	1,227	—	—	1,224	—	—	1,241
Parity ratio (1910-14=100) (%) 2/	52	54	55	57	55	54	53	54	55	56	56

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities & services, interest, taxes, & wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly & will be published in January, April, July, & October. P = preliminary. R = revised. — = not available.

Information contact: Ann Duncan (202) 786-3313.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1989							1990
	1987	1988	1989 P	Jan	Aug	Sept	Oct	Nov	Dec R		Jan P
Crops											
All wheat (\$/bu.)	2.57	3.72	3.80-3.90	4.02	3.74	3.72	3.75	3.71	3.80		3.83
Rice, rough (\$/cwt)	7.27	6.83	7.00-8.00	6.58	7.33	7.55	7.54	6.94	6.95		7.11
Corn (\$/bu.)	1.94	2.54	2.20-2.40	2.60	2.27	2.27	2.22	2.24	2.27		2.26
Sorghum (\$/cwt)	3.04	4.05	3.57-3.93	4.09	3.81	3.80	3.61	3.68	3.53		3.63
All hay, baled (\$/ton)	64.76	86.74	—	89.50	82.70	84.80	85.70	83.60	84.20		85.00
Soybeans (\$/bu.)	5.88	7.42	5.35-5.65	7.69	6.07	5.70	5.28	5.64	5.64		5.52
Cotton, upland (cts./lb.)	64.3	56.6	5/ 67.3	60.5	61.1	63.8	64.1	65.8	61.4		60.2
Potatoes (\$/cwt)	4.38	6.02	6.85	6.24	7.57	5.62	4.97	6.55	7.02		7.34
Lettuce (\$/cwt)	14.70	14.70	13.60	18.60	10.50	12.60	14.50	13.30	7.06		14.10
Tomatoes fresh (\$/cwt)	26.00	26.90	31.80	43.40	22.40	23.10	29.00	26.20	40.30		107.00
Onions (\$/cwt)	12.50	9.72	10.70	11.70	15.80	9.55	11.40	11.30	12.40		11.30
Dry edible beans (\$/cwt)	16.50	29.80	27.90	30.20	27.60	25.00	25.40	27.70	27.80		30.30
Apples for fresh use (cts./lb.)	12.7	17.4	—	18.1	16.1	19.1	15.9	13.4	12.2		12.5
Pears for fresh use (\$/ton)	227.00	358.00	360.00	336.00	398.00	382.00	387.00	369.0	351.00		349.00
Oranges, all uses (\$/box) 2/	5.40	7.18	6.89	6.38	3.91	5.62	6.22	6.47	5.63		4.70
Grapefruit, all uses (\$/box) 2/	4.96	5.43	4.50	4.35	5.63	6.10	6.18	5.54	5.18		4.62
Livestock											
Beef cattle (\$/cwt)	61.40	66.80	69.70	70.60	69.70	68.20	67.40	69.80	71.00		71.60
Calves (\$/cwt)	78.10	89.90	91.90	92.80	94.20	91.10	90.20	86.70	89.10		90.20
Hogs (\$/cwt)	50.80	42.50	43.20	40.90	45.70	43.40	46.80	45.00	48.20		46.90
Lambs (\$/cwt)	77.90	69.50	67.30	67.40	66.60	65.90	63.10	58.70	59.00		57.40
All milk, sold to plants (\$/cwt)	12.54	12.24	13.51	13.40	13.20	14.00	14.50	15.50	16.10		16.10
Milk, manuf. grade (\$/cwt)	11.37	11.15	12.47	12.20	12.20	13.10	13.60	14.80	15.10		14.90
Broilers (cts./lb.)	28.3	34.0	36.4	35.3	36.1	37.1	30.6	29.8	28.6		30.7
Eggs (cts./doz.) 3/	53.1	53.2	69.6	63.9	71.0	71.0	71.3	78.6	82.8		83.8
Turkeys (cts./lb.) 4/	34.3	36.9	40.2	35.4	41.3	37.3	38.5	40.9	39.6		35.9
Wool (cts./lb.) 4/	91.7	138.0	—	107.0	105.0	97.7	100.0	100.0	80.5		65.8

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Equivalent on-tree returns. 3/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 4/ Average local market price, excluding incentive payments. 5/ Weighted average of first 5 months of the season - not a projection for 1989/90. P = preliminary. R = revised. — = not available.

Information contact: Ann Duncan (202) 786-3313.

Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1988	1989							
	1989	Dec	May	June	July	Aug	Sept	Oct	Nov	Dec
1982-84=100										
Consumer Price Index, all items	124.0	120.5	123.8	124.1	124.4	124.8	125.0	125.8	125.9	126.1
Consumer Price Index, less food	123.7	120.4	123.5	123.9	124.2	124.3	124.8	125.4	125.6	125.8
All food	125.1	120.7	124.9	125.0	125.5	125.8	126.1	126.5	126.9	127.4
Food away from home	127.4	124.1	126.7	127.1	127.8	128.1	128.8	129.1	129.5	129.0
Food at home	124.2	119.1	124.4	124.3	124.8	124.9	125.0	125.4	125.8	126.5
Meats 1/	116.7	112.7	115.6	116.1	116.7	117.5	117.7	118.1	119.3	120.0
Beef & veal	119.3	114.6	119.6	119.3	119.5	119.7	120.0	120.0	121.3	122.1
Pork	113.2	109.6	110.1	111.8	113.6	114.8	114.3	114.9	97.7	105.0
Poultry	132.7	127.1	137.3	140.1	138.1	136.2	134.0	131.2	126.8	127.8
Fish	143.6	136.9	142.3	142.9	142.3	145.2	146.9	143.9	142.0	143.0
Eggs	118.5	99.6	112.6	110.6	112.8	115.2	124.6	122.9	129.4	134.9
Dairy products 2/	115.6	111.4	113.8	113.6	114.1	114.5	116.1	118.2	120.2	122.9
Fats & oils 3/	121.2	118.5	121.6	121.6	121.8	121.7	121.3	121.6	121.0	121.6
Fresh fruit	152.4	143.2	158.1	151.7	150.6	151.4	155.1	156.6	152.7	154.8
Processed fruit	125.9	124.4	125.1	125.6	126.0	126.9	127.8	127.1	126.6	125.2
Fresh vegetables	143.1	133.0	153.2	150.8	150.8	145.1	133.9	134.8	141.9	136.5
Potatoes	153.6	128.5	164.0	172.5	180.7	182.3	153.1	139.8	135.0	140.0
Processed vegetables	124.2	118.9	124.9	125.5	126.3	125.9	125.0	124.6	123.8	124.8
Cereals & bakery products	132.4	126.6	131.5	132.1	133.3	134.1	134.6	135.0	135.3	136.1
Sugar & sweets	119.4	116.7	118.1	119.2	120.1	120.6	120.8	121.3	120.7	121.1
Beverages, nonalcoholic	111.3	107.8	111.5	111.6	112.3	111.2	111.0	111.8	111.2	111.0
Apparel										
Apparel, commodities less footwear	117.1	116.8	119.3	116.1	112.8	112.8	118.9	121.8	121.1	117.6
Footwear	114.4	113.5	114.9	114.0	113.4	112.6	114.1	117.6	116.6	114.7
Tobacco & smoking products	164.4	149.9	161.1	164.2	167.5	168.8	168.2	168.8	168.6	171.9
Beverages, alcoholic	123.5	119.9	123.1	123.5	124.0	124.5	124.8	125.2	125.5	125.6

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter.

Information contact: Ann Duncan (202) 786-3313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1988	1989					
	1986	1987	1988	Dec	July	Aug R	Sept	Oct	Nov	Dec
	1982 = 100									
Finished goods 1/	103.2	105.4	108.0	110.0	114.1	113.4	113.5	114.8	114.8	115.3
Consumer foods	107.2	109.5	112.6	115.1	119.0	118.7	118.5	119.5	120.2	120.9
Fresh fruit	112.9	112.0	113.5	119.9	114.1	109.7	107.7	113.3	110.8	107.4
Fresh & dried vegetables	97.8	103.7	105.5	111.6	124.6	110.7	98.1	110.0	98.9	104.9
Dried fruit	91.9	95.0	99.1	100.8	102.8	103.6	105.4	103.4	103.6	106.2
Canned fruit & juice	111.0	115.3	120.2	122.4	123.4	123.3	123.2	122.8	122.6	123.4
Frozen fruit & juice	103.0	113.3	129.9	128.6	129.0	129.3	127.4	125.6	121.4	119.9
Fresh veg. excl. potatoes	99.3	99.0	100.4	96.7	110.5	96.3	81.5	101.0	84.1	88.0
Canned veg. & juices	101.2	103.5	108.3	117.3	118.9	118.5	119.8	118.0	117.7	118.5
Frozen vegetables	106.6	107.3	108.6	112.5	115.5	116.7	116.2	115.2	116.4	117.0
Potatoes	104.0	120.1	113.9	148.1	157.8	144.3	140.2	140.2	146.7	160.2
Eggs	99.5	87.6	88.6	100.3	111.0	116.7	124.6	124.3	134.5	141.3
Bakery products	116.6	118.4	126.4	130.6	135.3	137.1	137.9	137.9	137.2	137.6
Meats	93.9	100.4	99.9	99.0	105.8	106.0	105.2	104.8	107.1	108.4
Beef & veal	88.1	95.5	101.4	104.8	108.1	109.0	107.6	105.1	108.9	111.0
Pork	99.9	104.9	95.0	87.6	101.9	100.4	99.3	102.2	103.6	104.6
Processed poultry	116.7	103.4	111.6	115.3	125.9	121.2	120.2	113.7	112.3	110.2
Fish	124.9	140.0	148.7	151.6	137.3	135.6	137.7	146.7	146.5	143.2
Dairy products	99.9	101.8	102.2	106.2	107.8	110.7	112.9	116.5	120.4	121.4
Processed fruits & vegetables	104.9	108.6	113.8	118.5	120.8	121.2	120.9	120.2	120.0	120.8
Shortening & cooking oil	103.3	103.9	118.8	118.6	117.1	114.0	115.5	114.6	117.5	115.8
Consumer finished goods less foods	98.4	100.7	103.1	104.8	109.8	108.6	109.0	110.3	109.8	110.4
Beverages, alcoholic	110.1	110.3	111.8	112.0	116.9	117.2	114.2	114.5	114.7	114.5
Soft drinks	109.5	111.8	114.3	115.4	117.5	115.6	115.8	117.5	118.2	118.0
Apparel	106.3	108.3	111.7	113.1	114.2	114.9	115.0	115.2	115.4	115.5
Footwear	106.8	109.3	115.1	117.2	120.6	121.8	122.2	122.6	122.4	123.3
Tobacco products	142.4	154.6	171.9	184.7	196.8	198.1	198.7	200.7	200.4	209.2
Intermediate materials 2/	99.1	101.5	107.1	108.4	112.5	112.0	112.4	112.3	112.2	112.0
Materials for food manufacturing	98.4	100.8	106.0	108.6	113.3	113.3	114.0	113.3	115.4	115.4
Flour	94.5	92.9	105.7	113.2	115.0	114.8	113.3	112.4	112.7	113.8
Refined sugar 3/	103.2	106.4	108.9	113.7	118.1	118.6	121.1	120.6	119.8	121.5
Crude vegetable oils	84.8	84.2	116.6	108.4	100.3	96.7	99.5	94.1	102.4	97.6
Crude materials 4/	87.7	93.7	96.0	97.3	103.9	101.1	102.0	101.8	102.3	104.0
Foodstuffs & feedstuffs	93.2	96.2	106.1	109.5	110.1	110.0	108.3	107.2	109.4	112.3
Fruits & vegetables 5/	103.9	106.8	108.5	114.7	119.4	109.7	100.7	110.9	103.6	105.5
Grains	79.2	71.1	97.9	108.9	105.1	100.3	100.1	98.2	101.1	101.0
Livestock	91.8	102.0	103.3	101.0	104.3	108.3	103.2	104.1	105.1	110.0
Poultry, live	128.6	101.2	121.5	121.7	135.5	125.4	134.9	109.0	111.8	104.3
Fibers, plant & animal	88.3	106.4	98.4	93.9	111.4	116.8	113.9	116.9	115.3	106.3
Fluid milk	90.9	91.8	89.4	97.0	92.1	98.1	100.7	105.1	110.5	115.6
Oilseeds	91.4	99.2	134.0	137.5	129.7	115.3	113.8	101.7	106.1	106.7
Tobacco, leaf	89.7	85.7	87.2	94.4	93.7	92.4	97.0	95.0	93.7	93.7
Sugar, raw cane	104.9	110.2	111.9	112.0	116.5	118.3	119.0	117.8	118.2	117.2
All commodities	100.1	102.8	106.9	109.0	112.7	112.0	112.3	112.7	112.7	113.0
Industrial commodities	99.9	102.5	106.3	108.1	112.2	111.4	111.9	112.4	112.2	112.3
All foods 6/	105.5	107.8	111.5	114.1	118.1	117.9	117.7	118.4	119.3	120.0
Farm products & processed foods & feeds	101.2	103.7	110.0	112.9	115.4	115.0	114.4	114.3	115.4	116.5
Farm products	92.9	95.5	104.9	108.9	110.0	109.3	107.3	106.9	108.5	111.1
Processed foods & feeds 6/	105.4	107.9	112.7	115.0	118.2	117.9	118.1	119.1	119.0	119.3
Cereal & bakery products	111.0	112.6	123.0	126.5	132.1	132.9	132.9	132.9	132.4	132.9
Sugar & confectionery	109.6	112.6	114.7	117.3	121.5	121.3	121.8	120.4	120.5	120.9
Beverages	114.5	112.5	114.3	115.8	119.3	118.3	117.1	117.5	117.7	117.7

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types & sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh & dried. 6/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). R = revised.

Information contact: Ann Duncan (202) 786-3313.

Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual				1988	1989					
	1986	1987	1988	1989 P	Dec	July	Aug	Sept	Oct	Nov	Dec
Market basket 1/											
Retail cost (1982-84=100)	106.3	111.6	118.5	124.8	119.5	125.2	125.4	125.5	125.9	126.6	127.4
Farm value (1982-84=100)	94.9	97.1	100.5	107.4	103.0	108.4	107.0	106.0	108.1	109.2	109.3
Farm-retail spread (1982-84=100)	112.5	119.4	125.1	133.9	128.4	134.3	135.4	136.0	136.6	136.0	137.1
Farm value-retail cost (%)	31.2	30.5	30.2	30.2	30.2	30.3	29.9	29.6	29.5	30.2	30.0
Meat products											
Retail cost (1982-84=100)	102.0	109.6	112.2	118.7	112.7	116.7	117.5	117.7	118.1	119.3	120.0
Farm value (1982-84=100)	94.3	101.2	99.5	103.3	97.7	103.4	104.3	101.5	100.9	104.0	106.9
Farm-retail spread (1982-84=100)	109.8	118.3	125.2	130.4	128.1	130.3	131.1	134.3	135.8	135.0	133.4
Farm value-retail cost (%)	46.8	46.7	44.9	44.8	43.9	44.9	44.9	43.7	43.2	44.1	45.1
Dairy products											
Retail cost (1982-84=100)	103.3	105.9	108.4	115.6	111.4	114.1	114.5	116.1	118.2	120.2	122.9
Farm value (1982-84=100)	92.6	93.3	90.6	99.0	97.3	94.1	98.2	101.0	104.8	110.0	113.0
Farm-retail spread (1982-84=100)	113.3	117.5	124.7	130.9	124.4	132.6	129.5	130.1	130.5	129.6	132.0
Farm value-retail cost (%)	43.0	42.3	40.1	41.1	41.9	39.6	41.1	41.7	42.6	43.9	44.1
Poultry											
Retail cost (1982-84=100)	114.2	112.6	120.7	132.7	127.1	138.1	136.2	134.0	131.2	126.8	127.8
Farm value (1982-84=100)	115.1	93.8	110.2	118.2	114.4	126.1	117.8	118.6	101.6	100.6	96.7
Farm-retail spread (1982-84=100)	113.3	134.2	132.8	149.3	141.7	152.0	157.4	151.7	165.3	157.0	163.6
Farm value-retail cost (%)	53.9	44.6	48.9	47.7	48.2	48.9	46.3	47.4	41.4	42.4	40.5
Eggs											
Retail cost (1982-84=100)	97.2	91.5	93.6	118.5	99.8	112.8	115.2	124.8	122.9	129.4	134.9
Farm value (1982-84=100)	92.4	76.8	76.7	107.7	90.1	97.3	110.3	110.7	110.3	125.1	133.4
Farm-retail spread (1982-84=100)	106.0	117.9	123.9	137.7	116.7	140.7	123.9	149.6	145.5	137.1	137.6
Farm value-retail cost (%)	61.0	53.9	52.7	58.4	58.1	55.4	61.5	57.1	57.7	62.1	63.5
Cereal & bakery products											
Retail cost (1982-84=100)	110.9	114.8	122.1	132.4	126.6	133.3	134.1	134.6	135.0	135.3	136.1
Farm value (1982-84=100)	76.3	71.0	92.7	101.6	101.0	102.7	99.4	99.9	98.7	99.4	101.2
Farm-retail spread (1982-84=100)	115.7	120.9	126.2	136.7	130.2	137.6	138.9	139.4	140.1	140.3	141.0
Farm value-retail cost (%)	6.4	7.6	9.3	9.4	9.8	9.4	9.1	9.1	9.0	9.0	9.1
Fresh fruits											
Retail cost (1982-84=100)	120.4	135.6	145.4	154.7	147.0	152.3	154.5	158.8	159.8	155.3	158.6
Farm value (1982-84=100)	103.8	113.9	116.5	108.2	108.6	104.5	107.4	126.6	131.6	128.2	109.2
Farm-retail spread (1982-84=100)	128.0	145.7	158.7	176.1	164.7	174.4	176.2	173.6	172.8	167.8	181.4
Farm value-retail cost (%)	27.4	26.5	25.3	22.1	23.3	21.7	22.0	25.2	26.0	26.1	21.7
Fresh vegetables											
Retail cost (1982-84=100)	107.7	121.6	129.3	143.1	133.0	150.8	145.1	133.9	134.8	141.9	136.5
Farm value (1982-84=100)	90.0	112.0	105.8	126.4	108.5	158.3	127.0	94.8	111.3	113.4	98.2
Farm-retail spread (1982-84=100)	116.8	126.5	141.3	151.7	145.6	147.0	154.4	154.0	146.9	158.5	156.2
Farm value-retail cost (%)	28.4	31.3	27.8	30.0	27.7	35.6	29.7	24.0	28.0	27.1	24.4
Processed fruits & vegetables											
Retail cost (1982-84=100)	105.3	109.0	117.6	125.0	121.9	126.0	126.3	126.4	125.9	125.0	124.9
Farm value (1982-84=100)	101.5	111.1	136.6	134.7	137.9	136.7	133.2	136.7	136.8	135.8	130.8
Farm-retail spread (1982-84=100)	106.4	108.3	111.7	122.0	116.9	122.6	124.1	123.2	122.5	121.6	123.1
Farm value-retail cost (%)	22.9	24.2	27.6	25.6	26.9	25.8	25.1	25.7	25.8	25.8	24.9
Fats & oils											
Retail cost (1982-84=100)	106.5	108.1	113.1	121.2	118.5	121.6	121.7	121.3	121.6	121.0	121.6
Farm value (1982-84=100)	76.2	74.1	103.0	95.7	101.0	92.0	80.2	87.9	86.7	95.2	93.0
Farm-retail spread (1982-84=100)	117.6	120.6	116.8	130.5	124.9	132.5	137.0	133.6	134.4	130.5	132.1
Farm value-retail cost (%)	19.2	18.6	24.5	21.2	22.9	20.3	17.7	19.5	19.2	21.2	20.6

	Annual				1988	1989					
	1986	1987	1988	1989 P	Dec	July	Aug	Sept	Oct	Nov	Dec
Beef, Choice											
Retail price 2/ (cts./lb.)	230.7	242.5	254.7	269.9	260.0	271.8	269.5	270.9	270.8	272.9	274.4
Net carcass value 3/ (csts.)	133.1	145.3	153.9	160.6	158.1	156.4	155.6	152.3	153.8	159.6	165.9
Net farm value 4/ (csts.)	124.4	137.9	147.4	155.4	154.0	149.9	152.2	144.2	148.3	154.8	160.4
Farm-retail spread (csts.)	106.3	104.6	107.3	114.5	106.9	121.7	117.3	126.7	122.5	118.1	114.0
Carcass-retail 5/ (csts.)	97.6	97.2	100.8	109.3	101.9	115.2	113.9	118.6	117.0	113.3	108.5
Farm-carcass 6/ (csts.)	8.7	7.4	6.5	5.2	4.1	6.5	3.4	8.1	5.5	4.8	5.5
Farm value-retail price (%)	54	57	58	58	59	55	56	53	55	57	58
Pork											
Retail price 2/ (csts./lb.)	178.4	188.4	183.4	182.9	177.4	182.8	184.6	184.4	185.8	189.6	191.2
Wholesale value 3/ (csts.)	110.9	113.0	101.0	99.2	97.8	100.6	101.3	100.6	106.1	106.9	112.3
Net farm value 4/ (csts.)	82.4	82.7	69.4	70.4	66.0	75.2	74.6	70.3	75.6	73.2	79.5
Farm-retail spread (csts.)	96.0	105.7	114.0	112.5	111.4	107.6	110.0	114.1	110.2	116.4	111.7
Wholesale-retail 5/ (csts.)	67.5	75.4	82.4	83.7	79.6	82.2	83.3	83.8	79.7	82.7	78.9
Farm-wholesale 6/ (csts.)	28.5	30.3	31.6	28.8	31.8	25.4	26.7	30.3	30.5	33.7	32.8
Farm value-retail price (%)	46	44	38	38	27	41	40	38	41	39	42

1/ Retail costs are based on CPI-U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm-retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef carcasses. Prices from BLS. 3/ Value of carcass quantity (beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts; beef adjusted for value of fat & bone byproducts. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as fabricating, wholesaling, in-city transportation. 6/ Charges for livestock marketing, processing, & transportation.

Information contacts: Denise Dunham (202) 786-1870, Ron Gustafson (202) 786-1266.

Table 9.—Price Indexes of Food Marketing Costs

	Annual			1988		1989			
	1987	1988	1989	III	IV	I	II	III	IV P
	1987=100*								
Labor—hourly earnings & benefits	361.1	370.1	379.4	368.9	374.0	377.8	378.8	378.5	379.1
Processing	370.2	382.0	391.1	381.3	383.7	389.6	391.4	390.5	389.4
Wholesaling	384.2	394.1	409.2	394.7	399.8	405.1	407.6	410.8	410.3
Retailing	341.7	347.7	354.5	345.1	353.1	353.9	353.6	352.2	354.9
Packaging & containers	329.8	350.7	364.6	355.6	358.4	362.4	364.7	366.1	365.4
Paperboard boxes & containers	288.0	308.1	323.7	311.4	314.6	319.1	323.2	325.5	326.1
Metal cans	433.0	442.3	443.2	443.3	438.1	438.1	438.1	448.2	448.2
Paper bags & related products	331.3	372.2	409.2	382.2	395.7	408.3	411.5	409.2	405.5
Plastic films & bottles	280.2	305.7	313.2	315.0	317.0	318.8	318.1	311.3	309.8
Glass containers	402.0	398.9	409.9	398.6	398.2	401.2	413.1	413.5	412.9
Metal foil	222.1	266.9	274.4	277.5	284.1	282.9	278.0	271.6	270.1
Transportation services	385.0	403.5	404.9	404.5	404.8	403.2	403.5	406.2	406.3
Advertising	361.1	384.7	410.4	386.6	391.2	403.8	407.4	412.8	414.5
Fuel & power	596.7	578.2	619.4	580.9	571.1	601.1	614.8	620.0	628.9
Electric	450.5	453.3	488.9	474.9	451.3	451.3	466.1	492.0	484.3
Petroleum	561.4	502.0	592.1	472.4	474.7	560.5	583.4	560.0	598.0
Natural gas	1,049.0	1,042.1	1,070.9	1,049.1	1,055.3	1,073.1	1,068.6	1,067.2	1,071.2
Communications, water & sewage	238.4	241.3	247.3	241.3	243.0	244.5	247.0	248.9	248.8
Rent	269.6	272.6	277.1	272.0	278.0	277.4	276.8	277.1	277.1
Maintenance & repair	382.6	395.9	410.7	397.5	399.7	404.8	408.9	412.9	414.1
Business services	349.0	364.6	380.3	366.2	371.0	375.5	379.3	383.1	393.1
Supplies	286.8	305.6	321.4	310.2	315.2	321.3	323.9	321.1	321.1
Property taxes & insurance	399.6	419.9	439.7	422.5	428.3	431.4	435.6	442.3	445.0
Interest, short-term	132.9	150.3	172.1	159.8	168.0	184.9	181.8	184.2	183.4
Total marketing cost index	360.4	372.4	384.9	373.4	376.8	382.0	384.1	385.2	385.9

* Indexes measure changes in employee earnings & benefits & in prices of supplies & services used in processing, wholesaling, & retailing U.S. farm foods purchased for at-home consumption. P = preliminary.

Information contact: Denise Dunham (202) 786-1870.

Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Production 1/	Imports	Total supply	Exports	Ending stocks	Consumption		Primary market price 3/
							Total	Per capita 2/	
Million pounds 4/							Pounds		
Beef									
1987	412	23,568	2,269	26,247	604	388	25,257	73.4	64.60
1988	386	23,589	2,379	26,354	680	422	25,252	72.3	69.54
1989	422	23,138	2,155	25,715	1,067	328	24,322	69.0	72.52
1990 F	328	23,540	2,115	25,981	1,200	310	24,471	68.8	71-77
Pork									
1987	248	14,374	1,195	15,817	109	347	15,362	59.1	51.89
1988	347	15,684	1,137	17,188	195	413	16,560	63.5	43.39
1989	413	15,820	900	17,133	265	285	16,583	63.2	44.03
1990 F	285	15,588	940	16,811	255	375	16,181	61.2	47-53
Veal 5/									
1987	7	429	24	460	7	4	449	1.5	78.05
1988	4	396	27	427	10	5	412	1.4	89.79
1989	5	353	0	358	0	4	354	1.2	91.61
1990 F	4	349	0	353	0	4	349	1.2	90-96
Lamb & mutton									
1987	13	315	44	372	2	8	364	1.3	78.09
1988	8	335	51	394	1	6	387	1.4	68.26
1989	8	347	82	415	2	8	405	1.4	67.32
1990 F	8	361	83	432	1	7	424	1.5	61-68
Total red meat									
1987	680	38,684	3,532	42,895	722	744	41,432	138.0	—
1988	744	40,004	3,594	44,343	888	846	42,810	138.8	—
1989	846	39,658	3,117	43,621	1,334	623	41,664	134.8	—
1990 F	823	39,838	3,118	43,577	1,456	696	41,425	132.6	—
Broilers									
1987	24	15,694	0	15,818	752	25	14,842	60.8	47.4
1988	25	16,180	0	16,205	765	38	15,403	62.5	56.3
1989	36	17,392	0	17,428	970	38	16,420	66.0	59.0
1990 F	38	16,549	0	16,587	1,040	30	17,517	69.8	49-55
Mature chicken									
1987	163	639	0	802	15	188	599	2.4	—
1988	188	638	0	826	28	157	644	2.6	—
1989	157	625	0	787	23	190	568	2.3	—
1990 F	190	632	0	788	20	150	652	2.6	—
Turkeys									
1987	178	3,832	0	4,010	33	266	3,711	15.2	57.8
1988	266	3,968	0	4,234	51	250	3,934	16.0	61.5
1989	250	4,229	0	4,479	42	234	4,230	16.9	66.7
1990 F	234	4,450	0	4,684	48	250	4,388	17.5	56-62
Total poultry									
1987	365	20,085	0	20,430	800	479	19,151	78.5	—
1988	479	20,788	0	21,265	842	442	19,981	81.1	—
1989	442	22,247	0	22,689	1,035	462	21,191	85.2	—
1990 F	462	23,832	0	24,094	1,108	430	22,556	89.9	—
Red meat & poultry									
1987	1,045	58,749	3,532	63,328	1,521	1,224	60,581	214.4	—
1988	1,224	60,790	3,594	65,608	1,728	1,288	62,592	219.7	—
1989	1,288	61,905	3,117	66,310	2,369	1,085	62,855	220.0	—
1990 F	1,085	63,468	3,118	67,671	2,564	1,128	63,981	222.5	—

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was .71 for 1987, & 70.5 for 1988-90.) 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Choice steers, Omaha 1,000-1,100 lb.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8-18 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. — = not available.

Information contacts: Polly Cochran, or Maxine Davis (202) 786-1284.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Pro-duction	Im-ports	Total supply	Ex-ports	Hatch- ing use	Ending stocks	Consumption		Wholesale price*
								Total	Per capita	
										Cts./doz.
1985	11.1	5,710.1	12.7	5,733.9	70.6	548.1	10.7	5,104.5	255.9	66.4
1986	10.7	5,768.3	13.7	5,790.7	101.6	566.8	10.4	5,111.9	253.8	71.1
1987	10.4	5,868.2	5.6	5,884.2	111.2	599.1	14.4	5,159.5	253.8	61.6
1988	14.4	5,783.5	5.3	5,803.2	141.8	605.9	15.2	5,040.3	245.6	62.1
1989 P	15.2	5,585.8	28.5	5,629.5	85.1	641.6	11.0	4,881.9	235.6	81.9
1990 F	11.0	5,700.0	12.0	5,723.0	104.0	675.0	10.0	4,934.0	236.1	70-74

* Cartoned grade A large eggs, New York. P = preliminary. F = forecast.

Information contact: Maxine Davis (202) 786-1714.

Table 12.—U.S. Milk Supply & Use¹

	Pro-duction	Farm use	Commercial		Total commercial supply	CCC net re-movals	Commercial		All milk price ^{2/}
			Farm market-ings	Beg. stock			Ending stocks	Disap-pear-ance	
									Billion pounds
1981	132.8	2.3	130.5	5.9	2.3	138.5	12.9	5.4	13.77
1982	135.5	2.4	133.1	5.4	2.6	141.0	14.3	4.6	13.61
1983	139.6	2.4	137.2	4.6	2.6	144.4	16.8	5.2	13.59
1984	135.4	2.9	132.4	5.2	2.7	140.4	8.6	4.9	13.46
1985	143.0	2.5	140.6	4.9	2.8	148.3	13.2	4.6	12.75
1986	143.1	2.4	140.7	4.6	2.7	148.1	10.8	4.2	12.51
1987	142.7	2.3	140.5	4.2	2.5	147.1	6.7	4.6	12.54
1988	145.2	2.2	142.9	4.6	2.4	150.0	8.9	4.3	12.24
1989 F	144.3	2.2	142.0	4.3	2.5	148.8	9.0	3.9	13.54

^{1/} Milkfat basis. Totals may not add because of rounding. ^{2/} Delivered to plants & dealers; does not reflect deductions. F = forecast.

Information contact: Jim Miller (202) 786-1770.

Table 13.—Poultry & Eggs

	Annual			1988		1989				
	1987	1988	1989	Dec	July	Aug	Sept	Oct	Nov	Dec
Broilers										
Federally inspected slaughter, certified (mil. lb.)	15,502.5	16,124.4	17,334	1,328.3	1,365.0	1,604.9	1,425.3	1,497.1	1,432.2	1,491.1
Wholesale price, 12-city (cts./lb.)	47.4	56.3	59.0	58.8	62.0	57.3	59.9	61.7	49.2	48.4
Price of grower feed (\$/ton)	186	220	235	254	236	233	239	223	221	220
Broiler-feed price ratio 1/	3.7	3.1	3.1	2.8	3.3	3.1	3.1	2.7	2.7	2.6
Stocks beginning of period (mil. lb.)	23.9	24.8	35.9	35.3	34.3	34.9	39.7	35.9	34.5	40.6
Broiler-type chicks hatched (mil.) 2/	5,379.2	5,601.0	5,932.4	488.2	511.8	509.3	484.0	483.7	469.3	521.4
Turkeys										
Federally inspected slaughter, certified (mil. lb.)	3,717	3,923	4,174	272.8	360.4	430.3	385.7	422.1	423.1	334.1
Wholesale price, Eastern U.S., 8-16 lb. young hens (cts./lb.)	57.8	61.2	66.7	61.6	66.4	62.8	57.9	67.8	72.5	72.7
Price of turkey grower feed (\$/ton)	213	243	252	264	251	250	249	243	241	240
Turkey-feed price ratio 1/	3.9	3.0	3.2	2.9	3.3	3.3	3.0	3.2	3.4	3.3
Stocks beginning of period (mil. lb.)	178.2	286.2	249.7	303.5	454.6	496.7	574.3	569.3	571.8	258.0
Poults placed in U.S. (mil.)	264.2	261.4	289.8	20.4	26.5	23.0	19.9	20.1	20.7	21.8
Eggs										
Farm production (mil.)	70,418	69,402	67,029	5,831	5,833	5,598	5,439	5,648	5,556	5,760
Average number of layers (mil.)	284	277	269	274	268	266	267	268	270	271
Rate of lay (eggs per layer on farms)	248	251	250	21.3	21.2	21.0	20.4	21.0	20.6	21.3
Cartoned Price, New York, grade A large (cts./doz.) 3/	61.6	62.1	61.9	70.4	76.5	64.2	63.8	64.8	63.4	69.5
Price of laying feed (\$/ton)	170	202	209	221	210	209	209	200	199	200
Egg-feed price ratio 1/	6.3	5.3	6.7	5.4	6.1	6.8	6.8	7.1	7.9	8.3
Stocks, first of month										
Shell (mil. doz.)	0.66	1.29	0.27	0.78	0.81	0.38	0.51	0.69	0.18	0.33
Frozen (mil. doz.)	9.8	13.1	14.9	13.8	11.4	12.5	11.4	10.9	11.3	10.1
Replacement chicks hatched (mil.)	428	368	383	27.2	30.2	32.4	32.7	33.3	29.9	29.3

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 15 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 786-1714.

Table 14.—Dairy

	Annual			1988	1989					
	1987	1988	1989	Dec	July	Aug	Sept	Oct	Nov	Dec
Milk prices, Minnesota-Wisconsin, 3.5% fat (\$/cwt) 1/	11.23	11.03	12.37	12.27	11.76	12.37	13.10	13.87	14.69	14.93
Wholesale prices										
Butter, grade A Chi. (cts./lb.)	140.2	132.5	127.9	131.2	130.3	132.8	125.1	120.5	120.5	120.0
Am. cheese, Wis. assembly pt. (cst./lb.)	123.2	123.8	138.8	136.0	140.6	143.2	155.8	160.3	163.6	162.2
Nonfat dry milk (cst./lb.) 2/	79.3	80.2	105.5	92.7	96.2	110.7	121.7	139.9	158.7	128.0
USDA net removals										
Total milk equiv. (mil. lb.) 3/	8,706.0	8,856.2	8,967.9	448.7	167.1	-89.5	162.9	158.4	163.7	493.4
Butter (mil. lb.)	187.3	312.6	413.4	19.8	7.7	-5.1	7.7	7.4	7.7	22.1
Am. cheese (mil. lb.)	282.0	238.1	37.4	3.8	0.2	3.1	0	0	0	0
Nonfat dry milk (mil. lb.)	559.4	267.5	0	0	0	0	0	0	0	0
Milk										
Milk prod. 21 States (mil. lb.)	121,431	123,518	122,531	10,218	10,183	10,074	9,868	9,878	9,854	10,047
Milk per cow (lb.)	13,969	14,291	14,376	1,186	1,199	1,184	1,137	1,161	1,132	1,176
Number of milk cows (1,000)	8,693	8,643	8,527	8,612	8,491	8,508	8,501	8,510	8,531	8,544
U.S. milk production (mil. lb.)	142,709	145,152	144,252	12,015	6/11,974	6/11,846	6/11,368	6/11,661	11,398	11,860
Stock, beginning										
Total (mil. lb.)	12,867	7,440	8,189	8,382	13,937	13,817	13,308	12,102	11,092	9,586
Commercial (mil. lb.)	4,165	4,646	4,289	4,069	5,888	5,899	5,809	5,228	4,849	4,175
Government (mil. lb.)	8,702	2,794	3,900	4,313	8,048	7,918	7,499	6,874	6,243	5,410
Imports, total (mil. lb.) 3/	2,490	2,394	—	235	194	240	228	240	268	—
Commercial disappearance (mil. lb.)	135,753	138,812	—	11,392	11,801	12,056	11,829	11,933	11,991	—
Butter										
Production (mil. lb.)	1,104.1	1,207.5	1,260.3	112.0	72.2	80.1	82.1	92.7	93.9	107.7
Stocks, beginning (mil. lb.)	193.0	143.2	214.7	228.2	464.2	461.0	439.2	407.6	370.4	294.1
Commercial disappearance (mil. lb.)	902.5	909.8	—	94.8	80.8	88.5	78.7	85.1	115.5	—
American cheese										
Production (mil. lb.)	2,716.7	2,756.8	2,678.2	235.0	226.8	214.0	200.3	206.8	210.2	228.7
Stocks, beginning (mil. lb.)	697.1	370.4	293.0	282.5	317.4	315.9	306.4	273.8	249.6	235.7
Commercial disappearance (mil. lb.)	2,437.1	2,570.0	—	205.6	227.8	220.4	233.4	230.2	225.3	—
Other cheese										
Production (mil. lb.)	2,627.7	2,815.0	2,903.6	251.5	237.8	246.4	246.8	246.3	244.0	254.0
Stocks, beginning (mil. lb.)	92.0	89.7	104.7	105.9	120.4	118.3	117.6	98.8	81.3	95.4
Commercial disappearance (mil. lb.)	2,880.2	3,034.1	—	278.2	259.8	271.8	291.4	291.1	259.5	—
Nonfat dry milk										
Production (mil. lb.)	1,056.8	978.5	871.2	75.8	60.8	53.9	46.3	48.0	50.8	62.5
Stocks, beginning (mil. lb.)	686.8	177.2	53.1	50.4	78.3	68.9	58.9	44.6	36.2	32.5
Commercial disappearance (mil. lb.)	492.9	733.1	—	69.9	71.6	63.8	59.1	56.7	54.8	—
Frozen dessert										
Production (mil. gal.) 4/	1,260.7	1,246.9	1,231.2	79.1	122.5	122.1	101.2	90.3	85.5	79.2
	Annual			1988	1989					
	1987	1988	1989 P	II	III	IV	I	II P	III P	IV P
Milk production (mil. lb.)	142,709	145,152	144,252	37,840	35,920	35,262	36,445	37,702	35,188	34,917
Milk per cow (lb.)	13,819	14,145	14,244	3,683	3,506	3,447	3,586	3,727	3,484	3,448
No. of milk cows (1,000)	10,327	10,262	10,127	10,274	10,245	10,229	10,164	10,118	10,101	10,127
Milk-feed price ratio 5/	1.83	1.58	1.64	1.51	1.46	1.59	1.56	1.48	1.63	1.91
Returns over concentrate 6/ costs (\$/cwt milk)	9.52	9.05	10.08	8.33	8.53	9.86	9.63	8.80	9.80	12.10

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area. 3/ Milk equivalent, fat basis. 4/ Ice cream, ice milk, & hard sherbet. 5/ Based on average milk price after adjustment for price support deductions. 6/ Estimated. P = preliminary. — = not available.

Information contact: Jim Miller (202) 788-1770.

Table 15.—Wool

	Annual			1988	1989					
	1987	1988	1989 P	Dec	July	Aug	Sept	Oct	Nov	Dec P
U.S. wool price, 1/ (cst./lb.)	285	438	370	450	350	350	350	350	333	300
Imported wool price, 2/ (cst./lb.)	247	372	354	435	325	330	333	335	335	338
U.S. mill consumption, scoured										
Apparel wool (1,000 lb.)	129,877	117,069	125,554	11,193	9,332	9,741	10,767	9,931	9,017	10,873
Carpet wool (1,000 lb.)	13,092	15,633	15,872	989	1,155	1,472	1,794	1,288	963	1,075

1/ Wool price delivered at U.S. mills, clean basis. Graded Territory 64's (20.60-22.04 microns) staple 2-3/4" & up. 2/ Wool price, Charleston, SC warehouse, clean basis. Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. P = preliminary.

Information contact: John Lawler (202) 788-1840.

Table 16.—Meat Animals

	Annual			1988	1989					
	1987	1988	1989	Dec	July	Aug	Sept	Oct	Nov	Dec
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	7,953	8,411	8,045	8,255	7,235	6,763	6,631	6,958	7,911	8,331
Placed on feed (1,000 head)	21,040	20,654	20,834	1,421	1,291	1,638	1,953	2,652	2,001	1,552
Marketings (1,000 head)	19,545	19,918	19,422	1,511	1,700	1,694	1,579	1,628	1,490	1,418
Other disappearance (1,000 head)	1,217	1,202	1,079	1,156	63	76	47	71	91	87
Beef steer—corn price ratio, Omaha 2/	41.0	31.5	30.3	27.9	29.6	32.0	30.8	31.1	32.2	32.8
Hog—corn price ratio, Omaha 2/	32.8	19.6	18.4	16.2	19.6	20.9	19.8	20.8	20.1	21.7
Market prices (\$/cwt)										
Slaughter cattle										
Choice steers, Omaha	64.60	69.54	72.52	71.21	70.74	71.09	68.44	69.69	72.48	75.21
Utility cows, Omaha	44.83	46.55	47.86	45.14	49.12	50.39	52.42	49.42	46.60	49.38
Choice vealers, S. St. Paul 3/	78.82	90.23	246.62	225.63	246.88	263.00	256.75	244.38	242.90	230.00
Feeder cattle										
Choice, Kansas City, 600–700 lb.	75.36	83.67	86.13	86.13	87.13	88.40	88.63	88.25	87.38	86.25
Slaughter hogs										
Barrows & gilts, 7–markets	51.69	43.39	44.03	43.01	47.06	46.84	44.32	47.15	45.77	49.33
Feeder pigs										
S. Mo. 40–50 lb. (per head)	46.69	36.06	33.63	29.17	24.25	30.00	30.72	37.27	38.33	36.21
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	78.09	68.26	67.32	68.83	67.79	67.28	63.81	59.63	56.06	61.00
Ewes, Good, San Angelo	38.62	38.88	38.58	42.06	31.92	30.65	30.31	28.00	35.25	39.42
Feeder lambs										
Choice, San Angelo	102.26	90.89	79.85	84.83	74.08	75.50	76.06	74.88	74.88	76.00
Wholesale meat prices, Midwest										
Choice steer beef, 600–700 lb.	97.24	103.34	107.76	106.20	104.91	104.31	102.08	103.13	107.05	111.41
Canner & cutter cow beef	85.28	87.77	94.43	90.03	95.24	95.33	99.14	96.14	92.92	100.73
Pork loins, 14–18 lb. 4/	106.23	97.49	101.09	93.61	115.10	110.03	105.25	111.78	91.75	107.28
Pork bellies, 12–14 lb.	63.11	41.25	34.14	34.82	31.52	28.82	34.23	36.88	49.96	42.23
Hams, skinned, 14–17 lb.	80.96	71.03	69.39	65.50	64.23	68.00	69.13	80.56	87.00	78.89
All fresh beef retail price 5/	212.64	224.81	238.97	233.04	240.57	240.11	241.00	241.20	243.69	245.36
Commercial slaughter (1,000 head)*										
Cattle	35,647	35,079	33,916	2,774	2,784	3,045	2,773	2,964	2,785	2,681
Steers	17,443	17,344	16,535	1,354	1,385	1,491	1,352	1,373	1,299	1,284
Heifers	10,906	10,754	10,405	816	903	972	874	931	815	789
Cows	6,610	6,337	6,317	555	452	519	489	596	611	559
Bulls & stags	689	644	659	49	54	63	58	64	60	46
Calves	2,815	2,506	2,172	211	174	195	179	198	182	172
Sheep & lambs	5,199	5,293	5,464	460	413	494	457	464	482	470
Hogs	81,081	87,795	88,693	7,946	6,295	7,587	7,680	8,032	6,039	7,236
Commercial production (mil. lb.)										
Beef	23,405	23,424	22,973	1,872	1,889	2,091	1,912	2,041	1,908	1,828
Veal	416	387	345	32	27	29	28	31	28	25
Lamb & mutton	309	329	339	29	25	29	28	26	31	31
Pork	14,312	15,623	15,754	1,425	1,107	1,333	1,349	1,421	1,446	1,288
	Annual			1988		1989				1990
	1987	1988	1989	III	IV	I	II	III	IV	I
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,555	10,114	9,688	9,306	8,851	9,688	9,918	8,680	8,276	9,443
Placed on feed (1,000 head)	25,074	24,423	24,484	6,031	6,655	6,232	5,212	5,719	7,321	—
Marketings (1,000 head)	23,126	23,459	22,955	6,261	5,468	5,658	6,040	5,896	5,361	7/5,685
Other disappearance (1,000 head)	1,389	1,390	1,274	225	352	344	410	227	293	—
Hogs & pigs (10 States) 6/										
Inventory (1,000 head) 1/	39,730	42,675	43,210	44,065	45,000	43,210	41,655	44,020	45,200	42,200
Breeding (1,000 head) 1/	5,125	5,435	5,335	5,630	5,460	5,335	5,440	5,565	5,335	5,280
Market (1,000 head) 1/	34,605	37,240	37,875	38,435	39,540	37,875	36,215	38,455	39,865	36,920
Farrowings (1,000 head)	8,853	9,370	9,203	2,358	2,301	2,109	2,580	2,324	2,190	2,084
Pig crop (1,000 head)	68,955	72,268	71,807	18,000	17,520	16,441	20,309	18,167	16,890	—

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Per head starting September 1988. 4/ Prior to 1984, 8–14 lb.; 1984 & 1985, 14–17 lb.; beginning 1986, 14–18 lb. 5/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 8. 6/ Quarters are Dec. of preceding year–Feb. (I), Mar.–May (II), June–Aug. (III), & Sept.–Nov. (IV). 7/ Intentions. * Classes estimated. — = not available.

Information contacts: Polly Cochran (202) 786-1284.

Crops & Products

Table 17.—Supply & Utilization^{1,2}

	Area			Yield	Production	Total supply ^{4/}	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price ^{5/}
	Set aside ^{3/}	Planted	Harvested									
	Mil. acres		Bu./acre									\$/bu.
Wheat												
1984/85	18.3	79.2	68.9	38.8	2,595	4,003	405	749	1,424	2,578	1,425	3.39
1985/86	18.8	75.6	64.7	37.5	2,425	3,868	279	767	915	1,961	1,905	3.08
1986/87	21.0	72.1	60.7	34.4	2,092	4,018	413	780	1,004	2,197	1,821	2.42
1987/88	23.9	65.8	56.0	37.7	2,107	3,945	280	806	1,598	2,684	1,261	2.57
1988/89*	22.5	65.5	53.2	34.1	1,812	3,096	137	838	1,419	2,394	702	3.72
1989/90*	9.7	78.6	62.1	32.8	2,036	2,758	165	850	1,300	2,315	443	.80-3.90
Rice												
	Mil. acres		Lb./acre					Mil. cwt (rough equiv.)				\$/cwt
1984/85	0.79	2.83	2.80	4,954	138.8	187.3	—	6/60.5	62.1	122.6	64.7	6.04
1985/86	1.24	2.51	2.49	5,414	134.9	201.8	—	6/65.8	58.7	124.5	77.3	6.53
1986/87	1.48	2.38	2.36	5,651	133.4	213.3	—	6/77.7	64.2	161.9	51.4	3.75
1987/88	1.57	2.36	2.33	5,555	129.6	184.0	—	6/80.4	72.2	152.8	31.4	7.27
1988/89*	1.09	2.93	2.60	5,514	159.9	195.4	—	6/83.2	85.8	168.8	28.7	6.83
1989/90*	1.21	2.73	2.69	6,749	154.5	186.2	—	6/85.2	82.0	167.2	19.0	7.00-8.00
Corn												
	Mil. acres		Bu./acre									\$/bu.
1984/85	3.9	80.5	71.9	106.7	7,674	8,684	4,079	1,091	1,865	7,038	1,648	2.63
1985/86	5.4	83.4	75.2	118.0	8,877	10,538	4,095	1,160	1,241	6,496	4,040	2.23
1986/87	14.3	78.7	69.2	119.3	8,250	12,291	4,714	1,192	1,504	7,410	4,882	1.50
1987/88	23.0	65.7	59.2	119.8	7,131	12,016	4,805	1,229	1,723	7,757	4,259	1.94
1988/89*	20.5	67.6	56.2	84.6	4,929	9,191	3,679	1,245	2,038	7,260	1,930	2.54
1989/90*	10.1	72.3	64.8	116.2	7,527	9,460	4,400	1,305	2,275	7,980	1,480	2.20-2.40
Sorghum												
	Mil. acres		Bu./acre									\$/bu.
1984/85	0.8	17.3	15.4	56.4	866	1,154	539	18	297	854	300	2.32
1985/86	0.9	18.3	16.8	66.8	1,120	1,420	664	28	179	809	551	1.93
1986/87	3.0	15.3	13.9	67.7	938	1,489	535	12	198	748	743	1.37
1987/88	4.1	11.8	10.5	69.4	731	1,474	555	25	231	811	663	1.70
1988/89*	3.9	10.4	9.0	63.8	577	1,239	468	22	310	800	440	2.27
1989/90*	2.0	11.9	11.2	55.4	618	1,057	525	15	250	790	267	2.00-2.20
Barley												
	Mil. acres		Bu./acre									\$/bu.
1984/85	0.5	12.0	11.2	53.4	599	799	304	170	77	551	247	2.29
1985/86	0.7	13.2	11.6	51.0	591	848	333	169	22	523	325	1.98
1986/87	2.1	13.1	12.0	50.8	611	844	298	174	137	608	336	1.61
1987/88	2.9	11.0	9.9	52.4	521	869	254	174	120	548	321	1.81
1988/89*	2.8	9.9	7.6	38.0	290	622	166	180	80	426	196	2.79
1989/90*	2.2	9.2	8.3	48.6	403	610	175	180	100	455	155	2.40-2.50
Oats												
	Mil. acres		Bu./acre									\$/bu.
1984/85	0.1	12.4	8.2	58.0	474	689	433	74	1	508	180	1.67
1985/86	0.1	13.3	8.2	63.7	521	728	460	82	2	544	184	1.23
1986/87	0.6	14.7	6.9	56.3	386	603	395	73	3	471	133	1.21
1987/88	0.8	18.0	6.9	64.0	374	552	358	81	1	440	112	1.56
1988/89*	0.3	13.9	5.5	39.3	218	393	194	100	1	294	98	2.61
1989/90*	0.3	12.1	6.9	54.4	374	532	300	110	1	411	122	1.45-1.55
Soybeans												
	Mil. acres		Bu./acre									\$/bu.
1984/85	0	67.8	66.1	28.1	1,861	2,037	0	1,030	598	1,721	316	5.84
1985/86	0	63.1	61.6	34.1	2,099	2,415	0	1,053	740	1,879	536	5.05
1986/87	0	60.4	58.3	33.3	1,840	2,476	0	1,179	757	2,040	436	4.78
1987/88	0	58.2	57.2	33.9	1,938	2,374	0	1,174	802	2,072	302	5.88
1988/89*	0	58.9	57.4	27.0	1,549	1,851	0	1,058	527	1,669	162	7.42
1989/90*	0	60.5	59.4	32.4	1,927	2,109	0	1,090	590	1,774	335	5.35-5.65
Soybean oil												
								Mil. lbs.				¢/Cts./lb.
1984/85	—	—	—	—	11,468	12,209	—	9,917	1,660	11,577	632	29.50
1985/86	—	—	—	—	11,617	12,257	—	10,053	1,257	11,310	947	18.00
1986/87	—	—	—	—	12,783	13,745	—	10,833	1,187	12,020	1,725	15.40
1987/88	—	—	—	—	12,874	9/14,895	—	10,930	1,873	12,803	2,092	22.65
1988/89*	—	—	—	—	11,737	9/13,967	—	10,591	1,661	12,252	1,715	21.10
1989/90*	—	—	—	—	12,220	9/13,950	—	11,250	1,450	12,700	1,250	19.0-21.0
Soybean meal												
								1,000 tons				10/ \$/ton
1984/85	—	—	—	—	24,529	24,784	—	19,480	4,917	24,397	387	125
1985/86	—	—	—	—	24,951	25,338	—	19,090	6,036	25,126	212	155
1986/87	—	—	—	—	27,758	27,970	—	20,387	7,343	27,730	240	163
1987/88	—	—	—	—	28,060	28,300	—	21,293	6,854	28,147	153	222
1988/89*	—	—	—	—	24,943	25,100	—	19,798	5,129	24,927	173	233
1989/90*	—	—	—	—	26,077	26,250	—	21,350	4,850	26,000	250	160-180

See footnotes at end of table.

Table 17.—Supply & Utilization, continued

	Area		Harvested	Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending Stocks	Farm price \$/
	Set Aside 3/	Planted										
	Mil. acres		Lb./acre		Mil. bales							
Cotton 11/												
1984/85	2.5	11.1	10.4	600	13.0	15.8	—	5.5	6.2	11.8	4.1	58.70
1985/86	3.6	10.7	10.2	630	13.4	17.6	—	6.4	2.0	8.4	9.4	56.60
1986/87	4.2	10.0	8.5	552	9.7	19.1	—	7.4	6.7	14.1	5.0	52.40
1987/88	4.0	10.4	10.0	708	14.8	19.8	—	7.6	6.6	14.2	5.8	64.30
1988/89*	2.2	12.5	11.9	819	15.4	21.2	—	7.8	8.2	13.9	7.1	66.60
1989/90*	3.5	10.8	9.5	619	12.2	19.3	—	8.2	7.7	15.9	3.5	—

* February 9, 1990 Supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats; August 1 for cotton & rice; September 1 for soybeans, corn, & sorghum; October 1 for soybean meal & soybean oil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2,204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480-pound bales of cotton. 3/ Includes diversion, PIK, acreage reduction, 50-92, & 0-92 programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Includes seed. 8/ Average of crude soybean oil, Decatur. 9/ Includes 196 million pounds in imports for 1987/88, 140 million in 1988/89, and 15 million in 1989/90. 10/ Average of 44 percent, Decatur. 11/ Upland & extra long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. — = not available or not applicable.

Information contact: Commodity Economics Division, Crops Branch (202) 786-1840.

Table 18.—Food Grains

	Marketing year 1/				1988		1989			
	1985/86	1986/87	1987/88	1988/89	Dec	Aug	Sept	Oct	Nov	Dec
Wholesale prices										
Wheat, No. 1 HRW, Kansas City (\$/bu.) 2/	3.28	2.72	2.96	4.17	4.25	4.24	4.18	4.28	4.36	4.39
Wheat, DNS, Minneapolis (\$/bu.) 2/	3.25	2.62	2.92	4.25	4.20	4.22	4.23	NQ	NQ	NQ
Rice, S.W. La. (\$/cwt) 3/	16.11	10.25	19.25	14.85	14.10	16.40	15.90	15.55	15.00	14.60
Wheat										
Exports (mil. bu.)	915	1,004	1,592	1,424	109	138	160	93	78	85
Mill grind (mil. bu.)	703	755	753	778	64	74	68	72	69	62
Wheat flour production (mil. cwt)	314	335	336	348	28	32	30	32	30	27
Rice										
Exports (mil. cwt, rough equiv.)	58.7	84.2	72.2	85.6	6.8	5.5	8.5	8.8	8.2	—

	Marketing year 1/				1988		1989			
	1986/87	1987/88	1988/89	Mar-May	Jun-Aug	Sept-Nov	Dec-Feb	Mar-May	June-Aug	Sept-Nov
Wheat										
Stocks, beginning (mil. bu.)	1,905	1,821	1,281	1,923.5	1,280.8	2,253.6	1,715.9	1,227.7	701.6	1,017.2
Domestic use										
Food (mil. bu.)	712	721	735	174.6	183.3	197.3	178.3	176.0	192.7	196.0
Seed, feed & residual (mil. bu.) 4/	485	365	240	25.9	283.2	17.6	-48.9	-13.8	283.5	-19.6
Exports (mil. bu.)	999	1,598	1,419	467.3	361.6	329.0	360.5	366.0	369.9	328.6

1/ Beginning June 1 for wheat & August 1 for rice. 2/ Ordinary protein. 3/ Long grain, milled basis. 4/ Residual includes feed use. — = not available. NQ = no quote.

Information contacts: Ed Allen & Janet Livezey (202) 786-1840.

Table 19.—Cotton

	Marketing year 1/				1988		1989			
	1985/86	1986/87	1987/88	1988/89	Dec	Aug	Sept	Oct	Nov	Dec
U.S. price, SLM, 1-1/16 in. (cts./lb.) 2/	60.0	53.2	83.1	57.7	54.8	69.9	68.5	69.4	68.3	63.6
Northern Europe prices Index (cts./lb.) 3/	48.9	82.0	72.7	66.4	61.3	83.0	81.8	82.1	82.1	77.3
U.S. M 1-3/32 in. (cts./lb.) 4/	64.8	61.8	78.3	69.2	65.8	84.5	83.0	83.3	82.1	76.3
U.S. mill consumpt. (1,000 bales)	6,399	7,452	7,817	7,792	496	800	725	763	702	557
Exports (thou bales)	1,969	6,684	8,582	6,147	670	507	492	522	520	—
Stocks, beginning (1,000 bales)	4,102	9,348	5,026	5,771	14,096	7,093	6,179	5,577	9,248	—

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Outlook (A) Index; average of five lowest priced of 11 selected growths. 4/ Memphis territory growths.

Information contact: Bob Skinner (202) 786-1840.

Table 20.—Feed Grains

	Marketing year 1/				1988	1989				
	1985/86	1986/87	1987/88	1988/89	Dec	Aug	Sept	Oct	Nov	Dec
Wholesale prices										
Corn, no. 2 yellow, 30 day, Chicago (\$/bu.)	2.35	1.64	2.14	2.68	2.69	2.30	2.32	2.36	2.37	2.34
Sorghum, no. 2 yellow, Kansas City (\$/cwt)	3.72	2.73	3.40	4.17	4.23	3.92	4.73	3.91	4.00	3.98
Barley, feed, Duluth (\$/bu.) 2/	1.53	1.44	1.78	2.31	2.14	2.17	2.14	2.16	2.15	2.23
Barley, malting, Minneapolis (\$/bu.)	2.24	1.89	2.04	4.11	3.82	3.57	3.42	3.48	3.18	3.19
Exports 3/										
Corn (mil. bu.)	1,241	1,504	1,723	2,036	172.6	109.3	118.3	175	294	—
Feed grains (mil. metric tons) 4/	36.6	46.3	52.3	61.3	5.4	3.6	4.1	5.5	8.2	—
	Marketing year 1/				1988	1989				
	1985/86	1986/87	1987/88	1988/89	Sept-Nov	Dec-Feb	Mar-May	June-Aug	P Sept-Nov	Dec-Feb
Corn										
Stocks, beginning (mil. bu.)	1,648	4,040	4,882	4,259	4,259	7,072	5,204	3,419	1,930	7,079
Domestic use										
Feed (mil. bu.)	4,095	4,714	4,805	3,979	1,334	1,077	849	690	1,497	—
Food, seed, ind. (mil. bu.)	1,160	1,192	1,229	1,245	294	284	337	330	300	—
Exports (mil. bu.)	1,241	1,504	1,723	2,036	482	508	600	470	582	—
Total use (mil. bu.)	6,496	7,410	7,757	7,260	2,109	1,869	1,787	1,490	2,379	—

1/ September 1 for corn & sorghum; June 1 for oats & barley. 2/ Beginning March 1987 reporting point changed from Minneapolis to Duluth. 3/ Includes products. 4/ Aggregated data for corn, sorghum, oats, & barley. P = preliminary. — not available.

Information contact: James Cole (202) 786-1840.

Table 21.—Fats & Oils

	Marketing year *				1988	1989				
	1985/86	1986/87	1987/88	1988/89	Nov	July	Aug	Sept	Oct	Nov
Soybeans										
Wholesale price, no. 1 yellow, Chicago (\$/bu.)	5.20	5.03	6.67	7.41	7.57	6.97	5.98	5.80	5.61	5.76
Crushings (mil. bu.)	1,052.8	1,178.8	1,174.5	1,057.7	101.0	74.0	75.8	74.1	94.8	103.9
Exports (mil. bu.)	740.7	756.9	801.8	530.6	61.3	16.7	18.3	17.9	74.2	76.7
Stocks, beginning (mil. bu.)	316.0	536.4	436.4	302.5	136.6	46.1	31.0	23.8	24.5	96.6
Soybean oil										
Wholesale price, crude, Decatur (cts./lb.)	18.02	15.36	22.67	21.09	21.6	19.66	18.08	18.8	19.0	18.7
Production (mil. lb.)	11,617.3	12,783.1	12,974.5	11,737.0	1,144.2	835.9	855.0	843.0	1,047.4	1,108.5
Domestic disp. (mil. lb.)	10,045.9	10,820.2	10,734.1	10,455.6	741.1	632.7	1,014.5	948.3	1,134.2	1,048.4
Exports (mil. lb.)	1,257.3	1,184.5	1,873.2	1,858.2	119.6	159.3	181.1	265.6	123.9	82.5
Stocks, beginning (mil. lb.)	632.5	946.6	1,725.0	2,092.2	1,660.6	2,683.1	2,426.9	2,089.6	1,715.4	2,046.2
Soybean meal										
Wholesale price, 44% protein, Decatur (\$/ton)	154.88	162.61	221.90	233.46	248.20	231.50	215.50	217.10	191.60	183.40
Production (1,000 ton)	24,951.3	27,758.8	28,060.2	24,942.7	2,399.4	1,749.2	1,804.4	1,744.0	2,246.2	2,488.6
Domestic disp. (1,000 ton)	19,117.2	20,387.4	21,275.9	19,792.5	1,962.7	1,568.2	1,740.1	1,563.5	1,933.5	2,143.4
Exports (1,000 ton)	6,009.3	7,343.0	6,871.0	5,130.8	409.0	134.0	177.1	159.7	265.0	371.4
Stocks, beginning (1,000 ton)	386.9	211.7	240.2	153.5	267.8	218.0	264.9	152.0	172.9	220.5
Margarine, wholesale price, Chicago, white (cts./lb.)	51.2	40.3	40.3	52.3	55.4	53.26	51.6	52.20	51.7	52.1

* Beginning September 1 for soybeans; October 1 for soybean meal & oil; calendar year for margarine.

Information contacts: Roger Hoskin (202) 786-1840, Tom Bickerton (202) 786-1824.

Table 22.—Farm Programs, Price Supports, Participation & Payment Rates

	Target price	Loan rate	Findley loan rate	Payment rates		PIK	Base acres 1/	Program 2/	Participation rate 3/
				Deficiency	Paid land diversion				
						Percent 4/	Mil. acres		Percent of base
			\$/bu.						
Wheat									
1984/85	4.38	3.30	—	1.00	2.70	85	94.0	20/10/10-20	60/60/20
1985/86	4.38	3.30	—	1.08	2.70	—	94.0	20/10/0	73
1986/87 5/	4.38	3.00	2.40	1.98	2.00	1.10	91.6	22.5/2.5/5-10	85/85/21
1987/88	4.38	2.85	2.28	1.81	—	—	87.6	27.5/0/0	88
1988/89	4.23	2.76	2.21	0.89	—	—	84.8	27.5/0/0	86
1989/90	4.10	2.58	2.06	7/ .32	—	—	82.3	10/0/0	78
1990/91	4.00	2.44	1.95	—	—	—	—	* 5/0/0	—
			\$/cwt						
Rice									
1984/85	11.90	8.00	—	3.76	—	—	4.1	25/0/0	85
1985/86	11.90	8.00	6/3.16	3.90	3.50	—	4.2	20/15/0	90
1986/87 5/	11.90	7.20	6/3.82	4.70	—	—	4.2	35/0/0	94
1987/88	11.66	6.84	6/5.77	4.82	—	—	4.1	35/0/0	96
1988/89	11.15	6.63	6/6.30	4.31	—	—	4.1	25/0/0	94
1989/90	10.80	6.50	6/6.50	3.50	—	—	4.1	25/0/0	95
1990/91	10.71	6.50	—	—	—	—	—	20/0/0	95
			\$/bu.						
Corn									
1984/85	3.03	2.55	—	0.43	—	—	80.8	10/0/0	54
1985/86	3.03	2.55	—	0.48	—	—	84.2	10/0/0	69
1986/87 5/	3.03	2.40	1.92	1.11	—	—	81.7	17.5/2.5/0	86
1987/88	3.03	2.28	1.82	1.09	2.00	—	81.5	20/15/0	90
1988/89	2.93	2.21	1.77	7/ .36	1.75	—	82.9	20/10/0: 0/92	87
1989/90	2.84	2.06	1.65	7/ .64	—	—	82.7	10/0/0: 0/92	81
1990/91	2.75	1.96	1.57	—	—	—	—	10/0/0: 0/92	—
			\$/bu.						
Sorghum									
1984/85	2.88	2.42	—	0.46	—	—	16.4	8/(same)	42
1985/86	2.88	2.42	—	0.46	—	—	19.3	—	55
1986/87 5/	2.88	2.28	1.82	1.06	0.65	—	19.0	—	75
1987/88	2.88	2.17	1.74	1.14	1.90	—	17.4	—	84
1988/89	2.78	2.10	1.68	0.48	1.65	—	16.8	—	82
1989/90	2.70	1.96	1.57	7/ .70	—	—	16.2	—	79
1990/91	2.61	1.86	1.49	—	—	—	—	—	—
			\$/bu.						
Barley									
1984/85	2.60	2.08	—	0.52	—	—	11.6	8/(same)	44
1985/86	2.60	2.08	—	0.52	—	—	13.3	—	57
1986/87 5/	2.60	1.95	1.56	0.99	0.57	—	12.4	—	72
1987/88	2.60	1.88	1.49	0.79	1.60	—	12.5	—	84
1988/89	2.51	1.80	1.44	0.00	1.40	—	12.5	—	79
1989/90	2.43	1.68	1.34	7/ .23	—	—	12.4	—	69
1990/91	2.36	1.50	1.28	—	—	—	—	—	—
			\$/bu.						
Oats									
1984/85	1.60	1.31	—	0	—	—	9.8	8/(same)	14
1985/86	1.60	1.31	—	0.29	—	—	9.4	—	14
1986/87 5/	1.60	1.23	0.99	0.39	0.36	—	9.2	—	37
1987/88	1.60	1.17	0.94	0.20	0.80	—	8.4	—	45
1988/89	1.55	1.13	0.90	11/ 0.00	—	—	7.9	5/0/0: 0/92	30
1989/90	1.50	1.06	0.85	0.00	—	—	7.6	5/0/0: 0/92	23
1990/91	1.45	1.01	0.81	—	—	—	—	5/0/0: 0/92	—
			\$/bu.						
Soybeans 9/									
1984/85	—	5.02	—	—	—	—	—	—	—
1985/86	—	5.02	—	—	—	—	—	—	—
1986/87 5/	—	4.77	—	—	—	—	—	—	—
1987/88	—	4.77	—	—	—	—	—	—	—
1988/89	—	4.77	—	—	—	—	—	—	—
1989/90 10/	—	4.53	—	—	—	—	—	—	—
			Cts./lb.						
Upland cotton									
1984/85	81.0	55.00	—	18.60	—	—	15.6	25/0/0	70
1985/86	81.0	57.30	—	23.70	30.00	—	15.9	20/10/0	82/0/0
1986/87 5/	81.0	55.00	11/44.00	26.00	—	—	15.5	25/0/0	93
1987/88	79.4	52.25	12/ —	17.3	—	—	14.5	25/0/0	93
1988/89	75.9	51.80	12/ —	19.4	—	—	14.5	12.5/0/0	89
1989/90	73.4	50.00	12/ —	11.4	—	—	14.6	25/0/0	89
1990/91	72.9	50.27	12/ —	—	—	—	—	12.5/0/0	—

1/ Includes planted area plus acres considered planted (ARP, PLD, 0-82 etc). Net of CRP. 2/ Percentage of base acres that farmers participating in Acreage Reduction Programs/Paid Land Diversion/PIK were required to devote to conserving uses to receive program benefits. 3/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/PIK. 4/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1984 PIK rates apply only to the 10-20 portion. 5/ Rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm-Rudman-Hollings. 6/ Annual average world market price. 7/ Guaranteed to farmers signed up for 0/92. 8/ The sorghum, oats, & barley programs were the same as for corn in each year except 1988-90, when the oats ARP was lower than for the other feed grains. 9/ There are no target prices, acreage programs, or payment rates for soybeans. 10/ Loan rate was not to be announced prior to August 1, 1989. 11/ Loan repayment rate. 12/ Loans may be repaid at the lower of the loan rate or world market prices. * On September 13, the Secretary announced that participating farmers have the option of planting up to 105 percent of their wheat base to boost 1990 supplies. For every acre planted in excess of 95 percent of base, the acreage used to compute deficiency payments will be cut by 1 acre. — = not available.

Information contact: James Cole (202) 786-1840.

Table 23.—Fruit

	1981	1982	1983	1984	1985	1986	1987	1988	1989 P
Citrus 1/									
Production (1,000 ton)	15,105	12,139	13,682	10,832	10,525	11,058	11,994	12,761	13,132
Per capita consumpt. (lbs.) 2/	104.4	109.3	120.0	102.8	109.1	117.3	112.8	113.6	—
Noncitrus 3/									
Production (1,000 tons)	13,332	14,659	14,154	14,291	14,189	13,918	16,011	15,872	18,090
Per capita consumpt. (lbs.) 2/	88.0	89.2	88.7	93.9	91.8	96.4	101.5	97.7	—
	1988	1989							
	Dec	May	June	July	Aug	Sept	Oct	Nov	Dec
F.o.b. shipping point prices									
Apples (\$/carton) 4/	12.00	9.41	7.86	9.55	11.31	10.49	8.31	—	9.00
Pears (\$/box) 5/	10.38	13.67	14.38	—	—	—	11.10	—	11.75
Grower prices									
Oranges (\$/box) 6/	6.42	8.52	8.10	5.04	3.91	6.62	6.22	6.47	5.83
Grapefruit (\$/box) 6/	4.64	4.05	4.85	4.62	5.63	6.10	8.18	5.54	5.18
Stocks, ending									
Fresh apples (mil. lbs.)	3,265.8	619.3	347.3	174.9	8.0	2,522.0	4,501.9	3,845.8	3,219.4
Fresh pears (mil. lbs.)	295.5	28.6	6.4	11.0	157.9	448.2	436.0	368.8	272.6
Frozen fruits (mil. lbs.)	939.1	574.3	621.4	722.5	850.3	863.9	955.1	909.3	803.2
Frozen orange juice (mil. lbs.)	721.6	1,296.1	1,296.9	1,140.0	946.9	808.4	693.1	667.7	765.0

1/ 1989 indicated 1988/89 season. 2/ Per capita consumption for total U.S. population, including military consumption of both fresh and processed fruit in fresh weight equivalent. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. — = not available. p = preliminary. f = forecast.

Information contact: Wynne Napper (202) 796-1885.

Table 24.—Vegetables

	Calendar year									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production										
Total vegetables (1,000 cwt)	395,225	392,343	430,795	403,320	457,394	453,771	461,329	488,470	477,729	543,748
Fresh (1,000 cwt) 1/ 3/	179,416	183,458	193,452	185,561	202,608	204,146	215,969	230,913	237,978	240,421
Processed (tons) 2/ 3/	10,790,440	10,444,330	11,867,170	10,887,950	12,739,280	12,481,240	12,268,020	12,877,850	11,987,560	15,166,340
Mushrooms (1,000 lbs.)	469,576	517,146	490,826	561,531	585,681	587,956	614,393	631,819	667,367	—
Potatoes (1,000 cwt)	303,905	340,623	355,131	333,726	352,039	406,609	361,743	389,320	356,438	370,344
Sweetpotatoes (1,000 cwt)	10,853	12,799	14,833	12,083	12,902	14,573	12,368	11,611	10,845	11,499
Dry edible beans (1,000 cwt)	26,729	32,751	25,583	15,520	21,070	22,175	22,886	26,031	19,253	24,333
	1988	1989								
	Dec	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Shipments										
Fresh (1,000 cwt) 4/	16,535	20,887	35,676	31,223	21,599	21,914	15,030	16,605	21,968	17,467
Potatoes (1,000 cwt)	11,092	13,005	15,768	9,991	8,466	10,678	9,005	9,612	12,639	10,389
Sweetpotatoes (1,000 cwt)	460	229	190	20	19	187	288	333	789	451

1/ Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 2/ Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, & cauliflower. 3/ Asparagus & cucumber estimates were not available for 1982 & 1983. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons. — = not available.

Information contacts: Shannon Hamm or Cathy Greene (202) 786-1884.

Table 25.—Other Commodities

	Annual					1989				
	1985	1986	1987	1988	1989	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec
Sugar										
Production 1/	5,969	6,257	7,309	7,087	6,827	3,594	1,824	677	617	3,709
Deliveries 1/	8,035	7,786	8,167	8,188	8,309	2,107	1,902	2,056	2,161	2,190
Stocks, ending 1/	3,128	3,225	3,195	3,132	2,933	3,134	3,413	2,351	1,224	2,933
Coffee										
Composite green price N.Y. (cts./lb.)	137.46	185.18	109.14	115.59	95.17	120.75	126.67	118.01	72.29	63.70
Imports, green bean equiv. (mil. lbs.) 2/	2,550	2,596	2,638	2,072	2,630	472	588	535	784	725
	Annual				1988	1989				
	1986	1987	1988	Oct	May	June	July	Aug	Sept	Oct
Tobacco										
Prices at auctions 3/										
Flue-cured (\$/lb.)	1.52	1.59	1.61	1.69	—	—	—	—	1.74	1.70
Burley (\$/lb.)	1.60	1.56	1.61	—	—	—	—	—	—	—
Domestic consumption 4/										
Cigarettes (bil.)	584.0	575.0	562.5	46.9	52.9	51.5	26.8	47.2	44.4	—
Large cigars (mil.)	3,055	2,728	2,531	217.4	250.8	255.0	168.1	231.0	216.2	—

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. — = not available.

Information contacts: sugar, Peter Buzzanell (202) 786-1888, coffee, Fred Gray (202) 786-1888, tobacco, Verner Grise (202) 786-1890.

Table 26.—World Supply & Utilization of Major Crops, Livestock, & Products

	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89 P	1989/90 F
	Million units						
Wheat							
Area (hectares)	228.9	231.2	229.6	228.2	219.9	218.2	225.8
Production (metric tons)	489.3	511.9	500.1	530.6	501.7	501.3	536.2
Exports (metric tons) 1/	102.0	107.0	85.0	90.7	104.9	97.4	97.9
Consumption (metric tons) 2/	474.0	493.0	496.2	522.5	531.0	530.5	538.0
Ending stocks (metric tons) 3/	145.1	164.0	168.3	176.4	147.2	117.9	116.1
Coarse grains							
Area (hectares)	335.0	334.6	341.3	337.3	323.6	325.4	324.3
Production (metric tons)	688.1	815.8	842.7	833.7	792.1	728.3	800.0
Exports (metric tons) 1/	93.4	100.4	83.2	84.1	83.7	94.1	100.0
Consumption (metric tons) 2/	759.3	782.6	778.4	807.9	812.8	796.3	825.0
Ending stocks (metric tons) 3/	110.7	143.9	208.2	234.0	213.3	145.4	120.4
Rice, milled							
Area (hectares)	144.1	144.1	144.6	145.1	141.2	145.6	146.4
Production (metric tons)	307.9	318.8	318.8	318.3	313.3	329.5	339.6
Exports (metric tons) 4/	12.4	11.4	12.6	12.9	11.9	15.0	13.7
Consumption (metric tons) 2/	304.5	310.6	319.2	322.5	319.5	326.9	335.7
Ending stocks (metric tons) 3/	46.6	64.9	54.9	50.8	44.6	47.2	51.1
Total grains							
Area (hectares)	708.0	709.9	715.5	710.6	684.7	689.2	696.5
Production (metric tons)	1,485.3	1,646.5	1,661.6	1,682.6	1,607.1	1,559.1	1,675.8
Exports (metric tons) 1/	207.8	218.8	180.8	187.7	200.5	206.5	211.6
Consumption (metric tons) 2/	1,537.8	1,586.2	1,593.8	1,652.9	1,663.3	1,653.7	1,688.7
Ending stocks (metric tons) 3/	302.4	362.8	431.4	461.2	405.1	310.5	287.6
Oilseeds							
Crush (metric tons)	135.8	150.7	155.0	161.4	167.0	165.8	173.0
Production (metric tons)	165.0	191.1	196.1	194.3	208.7	202.4	213.7
Exports (metric tons)	33.0	33.1	34.5	37.7	39.5	31.5	34.3
Ending stocks (metric tons)	15.7	21.1	26.8	23.5	23.9	21.9	23.2
Meals							
Production (metric tons)	92.5	101.8	105.0	110.4	114.5	112.1	117.8
Exports (metric tons)	29.7	32.3	34.4	36.7	36.2	37.3	39.5
Oils							
Production (metric tons)	42.1	46.2	49.3	50.3	52.8	53.7	56.2
Exports (metric tons)	13.7	15.6	16.4	16.9	17.6	17.7	18.8
Cotton							
Area (hectares)	31.0	33.9	31.9	29.9	31.1	34.0	32.8
Production (bales)	85.6	88.2	79.6	70.4	81.1	84.3	79.3
Exports (bales)	19.2	20.2	20.2	26.0	23.2	25.7	25.1
Consumption (bales)	68.3	70.0	75.8	82.5	84.1	84.7	85.4
Ending stocks (bales)	24.0	42.4	47.2	34.9	32.2	30.9	24.7
	1984	1985	1986	1987	1988	1989 P	1990 F
Red meat							
Production (metric tons)	99.8	103.7	106.7	109.7	113.2	113.5	114.2
Consumption (metric tons)	97.8	101.6	105.4	107.9	111.3	111.6	112.4
Exports (metric tons) 1/	6.0	6.4	6.7	6.7	7.0	7.0	7.2
Poultry							
Production (metric tons)	25.2	26.2	27.4	29.3	30.2	31.3	32.6
Consumption (metric tons)	25.0	25.8	27.0	28.7	29.8	30.8	32.0
Exports (metric tons) 1/	1.3	1.2	1.3	1.5	1.7	1.7	1.8
Dairy							
Milk production (metric tons)	413.0	413.4	419.0	427.1	430.0	431.8	437.4

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1984 data correspond with 1983/84, etc. P = preliminary. F = forecast.

Information contacts: Crops, Frederic Suris (202) 786-1824; red meat & poultry, Linda Bailey (202) 786-1286; dairy, Sara Short (202) 786-1769.

U.S. Agricultural Trade

Table 27.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1988						
	1987	1988	1989	Dec	July	Aug	Sept	Oct	Nov	Dec
Export commodities										
Wheat, f.o.b. vessel, Gulf ports (\$/bu.)	3.11	3.97	4.65	4.55	4.57	4.49	4.47	4.50	4.57	4.62
Corn, f.o.b. vessel, Gulf ports (\$/bu.)	1.95	2.73	2.85	3.00	2.74	2.58	2.62	2.73	2.79	2.79
Grain sorghum, f.o.b. vessel, Gulf ports (\$/bu.)	1.88	2.52	2.70	2.79	2.60	2.54	2.63	2.60	2.64	2.65
Soybeans, f.o.b. vessel, Gulf ports (\$/bu.)	5.55	7.81	7.06	8.07	7.26	6.28	6.13	5.95	6.18	6.22
Soybean oil, Decatur (cts./lb.)	15.85	23.52	20.21	21.75	19.87	17.86	18.59	18.73	19.51	19.10
Soybean meal, Decatur (\$/ton)	175.57	234.75	218.59	246.48	230.23	214.70	216.65	191.93	183.76	179.82
Cotton, 8-market avg. spot (cts./lb.)	64.35	57.25	63.78	54.85	67.39	69.99	68.46	69.70	68.28	63.56
Tobacco, avg. price at auction (cts./lb.)	137.41	153.61	151.56	144.90	160.31	158.36	165.72	162.84	160.77	161.00
Rice, f.o.b. mill, Houston (\$/cwt)	13.15	19.60	15.63	15.00	16.50	16.50	16.50	16.50	16.00	15.67
Inedible tallow, Chicago (cts./lb.)	13.79	16.64	14.86	16.33	14.48	13.52	14.13	15.25	15.50	15.23
Import commodities										
Coffee, N.Y. spot (\$/lb.)	1.09	1.21	1.04	1.31	0.88	0.78	0.78	0.71	0.72	0.70
Rubber, N.Y. spot (cts./lb.)	50.85	59.20	50.65	64.13	49.16	47.21	46.13	46.08	45.64	44.82
Cocoa beans, N.Y. (\$/lb.)	0.87	0.69	0.55	0.68	0.58	0.55	0.49	0.46	0.44	0.42

Information contact: Mary Teymourian (202) 786-1820.

Table 28.—Indexes of Real Trade-Weighted Dollar Exchange Rates¹

	1989											1990
	Feb	Mar	Apr	May	June P	July P	Aug P	Sept P	Oct P	Nov P	Dec P	Jan P
	1985 = 100											
Total U.S. trade 2/	69.3	70.2	70.3	73.2	74.7	72.0	72.8	73.9	71.7	71.1	69.5	68.6
Agricultural trade												
U.S. markets	77.5	79.4	79.1	81.0	82.2	80.6	82.0	82.5	80.6	80.7	79.6	79.3
U.S. competitors	81.4	81.9	85.0	88.7	88.8	87.6	86.3	85.9	84.8	84.4	83.3	82.8
Wheat												
U.S. markets	91.2	93.7	92.7	93.6	93.6	93.2	96.2	95.9	94.1	93.7	92.0	92.7
U.S. competitors 3/	75.4	76.5	82.3	88.7	89.0	86.3	83.9	83.3	82.2	81.4	80.1	79.4
Soybeans												
U.S. markets	69.6	70.4	70.4	72.8	74.4	72.3	72.8	73.7	71.8	71.5	70.9	69.3
U.S. competitors 3/	70.3	72.6	91.8	109.7	106.1	105.1	95.4	90.6	90.3	90.5	90.7	91.0
Corn												
U.S. markets	68.7	70.7	70.2	72.2	73.9	72.3	74.0	74.7	73.1	73.4	72.6	72.5
U.S. competitors 3/	70.3	73.9	89.4	105.9	105.3	99.5	93.5	91.3	89.7	89.0	87.2	86.4
Cotton												
U.S. markets	74.4	75.1	74.9	76.2	77.4	76.3	76.4	76.9	75.7	75.8	75.4	75.1
U.S. competitors	80.6	82.7	82.7	84.6	84.3	83.4	89.5	88.2	85.8	84.6	83.2	83.4

^{1/} Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. ^{2/} Federal Reserve Board index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. ^{3/} Substantial devaluations of the Argentine austral and Brazilian cruzado resulted in a sharp increase in the April, 1989, & subsequent values of these indices. P = preliminary.

Information contact: Tim Saxter, David Stallings (202) 786-1706.

Table 29.—Trade Balance

	Fiscal year 1/								1989	
	1983	1984	1985	1986	1987	1988	1989 F	1990 F	Oct	Nov
	\$ million									
Exports										
Agricultural	34,769	38,027	31,201	26,312	27,676	35,379	39,651	38,000	3,392	3,654
Nonagricultural	159,373	170,014	179,236	179,291	202,911	258,593	302,507	—	27,273	25,276
Total 2/	194,142	208,041	210,437	205,603	230,587	293,972	342,158	—	30,665	28,930
Imports										
Agricultural	16,373	18,916	19,740	20,884	20,850	21,014	21,479	21,000	1,851	1,851
Nonagricultural	230,527	297,736	313,722	342,846	387,374	409,138	441,072	—	41,099	38,648
Total 3/	246,900	316,652	333,462	363,730	388,024	430,152	462,551	—	42,950	40,499
Trade balance										
Agricultural	18,396	19,111	11,461	5,428	7,226	14,365	18,172	17,000	1,541	1,803
Nonagricultural	-71,154	-127,722	-134,486	-163,555	-164,463	-150,545	-138,565	—	-13,828	-13,372
Total	-52,758	-108,611	-123,025	-158,127	-157,237	-136,180	-120,393	—	-12,285	-11,569

^{1/} Fiscal years begin October 1 & end September 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. ^{2/} Domestic exports including Department of Defense shipments (F.A.S. value). ^{3/} Imports for consumption (customs value). F = forecast. — = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 30.—U.S. Agricultural Exports & Imports

	Fiscal year*			Oct		Fiscal year*			Oct		Nov	
	1988	1989	1990 F	1989		1988	1989	1990 F	1989		Nov	
	1,000 units			1,000 units		\$ million			\$ million			
EXPORTS												
Animals, live (no.) 1/	430	758	—	47	50	452	475	—	44	51		
Meats & preps., excl. poultry (mt)	631	869	0	87	80	1,797	2,355	—	208	202		
Dairy products (mt)	388	594	—	8	7	536	475	800	29	26		
Poultry meats (mt)	390	468	500	43	53	424	514	—	42	51		
Fats, oils, & greases (mt)	1,362	1,377	3/1,400	133	105	545	531	—	48	39		
Hides & skins incl. furskins	—	—	—	—	—	1,837	1,713	—	143	135		
Cattle hides, whole (no.) 1/	20,817	26,260	—	2,153	2,108	1,458	1,360	—	113	106		
Mink pelts (no.) 1/	2,455	3,073	—	231	181	88	91	—	8	6		
Grains & feeds (mt)	108,944	114,976	—	9,176	11,300	12,569	16,837	4/15,600	1,283	1,490		
Wheat (mt)	40,517	37,702	33,000	2,431	1,868	4,469	6,008	5/5,400	393	305		
Wheat flour (mt)	1,236	1,288	1,300	66	135	170	266	—	17	31		
Rice (mt)	2,173	3,052	2,500	279	285	731	955	800	92	88		
Feed grains, incl. products (mt)	53,117	61,094	63,500	5,409	8,155	5,193	7,379	6,700	599	896		
Feeds & fodders (mt)	11,255	11,071	6/11,400	925	789	1,720	1,848	—	147	125		
Other grain products (mt)	910	1,197	—	101	141	362	513	—	47	55		
Fruits, nuts, and preps. (mt)	2,409	2,555	—	279	242	2,388	2,394	—	293	242		
Fruit juices incl.												
froz. (1,000 hectoliters) 1/	5,497	4,997	—	387	335	252	284	—	18	17		
Vegetables & preps. (mt)	1,821	2,482	—	174	166	1,280	1,546	—	155	166		
Tobacco, unmanufactured (mt)	229	212	200	18	32	1,297	1,274	1,300	106	193		
Cotton, excl. linters (mt)	1,388	1,441	1,700	114	113	2,138	2,039	2,700	178	184		
Seeds (mt)	286	514	—	43	28	415	500	500	39	42		
Sugar, cane or beet (mt)	318	388	—	52	48	98	134	—	20	14		
Oilseeds & products (mt)	29,688	21,090	—	2,424	2,567	7,758	6,824	5,800	609	627		
Oilseeds (mt)	21,601	14,775	—	2,058	2,148	5,295	4,400	—	483	500		
Soybeans (mt)	21,142	14,088	15,800	2,014	2,086	5,066	4,079	3,400	452	467		
Protein meal (mt)	6,389	4,816	4,600	244	341	1,501	1,317	900	57	77		
Vegetable oils (mt)	1,699	1,498	—	122	78	962	908	—	69	50		
Essential oils (mt)	9	13	—	1	1	120	171	—	16	14		
Other	610	812	—	55	41	1,495	1,805	—	165	155		
Total	148,473	147,569	145,500	12,607	14,783	35,379	39,651	38,000	3,392	3,654		
IMPORTS												
Animals, live (no.) 1/	2,238	2,484	—	149	254	729	740	700	54	92		
Meats & preps., excl. poultry (mt)	1,280	1,092	—	87	89	2,788	2,433	—	216	220		
Beef & veal (mt)	779	668	685	57	59	1,681	1,527	1,600	141	146		
Pork (mt)	456	371	370	25	26	1,001	778	800	63	63		
Dairy products (mt)	232	211	300	23	25	881	834	800	87	97		
Poultry & products 1/	—	—	—	—	—	97	130	—	13	12		
Fats, oils, & greases (mt)	20	14	—	1	1	19	14	—	1	1		
Hides & skins, incl. furskins 1/	—	—	—	—	—	247	240	—	11	12		
Wool, unmanufactured (mt)	56	62	—	6	3	292	319	—	23	13		
Grains & feeds (mt)	3,075	3,468	3,200	295	370	868	1,139	1,100	116	125		
Fruits, nuts, & preps., excl. juices (mt)	4,797	5,036	4,915	376	375	2,189	2,269	—	172	174		
Bananas & plantains (mt)	3,030	3,039	3,050	274	284	820	851	800	79	75		
Fruit juices (1,000 hectoliters) 1/	26,758	27,778	27,000	2,349	3,253	768	793	—	82	78		
Vegetables & preps. (mt)	2,518	2,953	2,700	146	168	1,593	1,959	1,900	142	154		
Tobacco, unmanufactured (mt)	217	169	280	15	13	611	521	500	48	40		
Cotton, unmanufactured (mt)	36	13	—	1	3	9	8	—	1	1		
Seeds (mt)	143	158	160	4	8	153	187	200	11	11		
Nursery stock & cut flowers 1/	—	—	—	—	—	419	466	—	48	57		
Sugar, cane or beet (mt)	1,078	1,630	—	97	119	372	620	—	38	51		
Oilseeds & products (mt)	1,772	1,917	1,900	179	175	938	946	900	86	83		
Oilseeds (mt)	208	424	—	54	54	71	159	—	18	17		
Protein meal (mt)	253	359	—	24	25	42	65	—	4	4		
Vegetable oils (mt)	1,311	1,133	—	101	97	725	721	—	64	61		
Beverages excl. fruit												
juices (1,000 hectoliters) 1/	15,583	13,967	—	1,146	1,254	2,008	1,815	—	196	205		
Coffee, tea, cocoa, spices (mt)	1,841	1,866	—	201	165	4,274	3,896	—	331	262		
Coffee, incl. products (mt)	1,050	1,084	1,200	135	108	2,600	2,467	2,300	212	159		
Cocoa beans & products (mt)	562	564	550	49	40	1,164	969	900	85	69		
Rubber & allied gums (mt)	846	927	850	72	80	949	1,051	1,000	87	66		
Other	—	—	—	—	—	931	1,097	—	101	98		
Total	—	—	—	—	—	21,014	21,479	21,000	1,824	1,851		

* Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. 1/ Not included in total volume. 2/ Forecasts for footnoted items 2/-6/ are based on slightly different groups of commodities. Fiscal 1988 exports of categories used in the 1989 forecasts were 2/ 561,000 m. tons. 3/ 1,347 million dollars 4/ 12,743 million. 5/ 4,638 million, i.e. includes flour. 6/ 11,095 million m. tons. F = forecast — = not available.

Information contact: Stephen MacDonald (202) 786-1822

Table 31.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*			Oct	Nov	Change from year* earlier			Oct	Nov
	1988	1989	1990 F	1989		1988	1989	1990 F	1989	
	\$ million					Percent			Percent	
Western Europe	8,053	7,087	8,600	785	779	12	-12	-7	12	-1
European Community (EC-12)	7,538	8,558	6,100	728	737	11	-13	-8	13	-1
Belgium-Luxembourg	429	431	—	83	70	1	1	—	26	38
France	563	474	—	58	33	14	-16	—	37	-47
Germany, Fed. Rep.	1,315	918	—	114	162	4	-30	—	25	118
Italy	713	603	—	47	85	-3	-18	—	-25	61
Netherlands	2,103	1,847	—	198	159	8	-12	—	7	-40
United Kingdom	818	736	—	78	73	23	-10	—	-21	-11
Portugal	340	307	—	31	24	25	-10	—	14.1	-3
Spain, Incl. Canary Islands	848	876	—	95	80	29	3	—	48	-18
Other Western Europe	516	510	500	59	42	20	-1	0	10	0
Switzerland	181	188	—	19	15	32	-13	—	33	19
Eastern Europe	559	422	500	34	20	23	-24	-25	57	-50
German Dem. Rep.	87	72	—	8	7	0	8	—	-10	1,818
Poland	167	45	—	17	6	185	-73	—	220	41
Yugoslavia	104	76	—	5	1	-21	-28	—	230	-95
Romania	93	62	—	4	4	-19	-33	—	-27	189
USSR	1,940	3,299	3,200	117	388	194	70	-3	-39	110
Asia	15,944	18,685	18,200	1,491	1,850	33	17	-3	3	8
West Asia (Mideast)	1,904	2,270	2,200	160	164	14	19	-4	-5	-3
Turkey	120	238	—	37	28	3	97	—	1,101	263
Iraq	735	791	900	52	28	39	8	12	-8	-68
Israel	334	285	—	12	24	37	-21	—	-35	19
Saudi Arabia	464	482	500	30	40	-5	4	0	-19	18
South Asia	805	1,171	—	81	62	133	45	—	-58	-46
Bangladesh	107	213	—	23	4	-3	98	—	-22	-67
India	354	243	—	7	12	281	-31	—	-86	-74
Pakistan	278	609	400	24	37	181	121	67	-51	-34
China	613	1,494	1,200	83	50	161	144	-20	19	-23
Japan	7,274	8,152	8,200	668	789	31	12	0	0	3
Southeast Asia	1,022	974	—	90	119	44	-5	—	20	97
Indonesia	245	218	—	23	31	61	-12	—	-9	269
Philippines	345	344	400	25	40	33	0	33	-1	67
Other East Asia	4,328	4,823	4,500	428	486	24	7	-2	29	31
Taiwan	1,577	1,594	1,600	180	188	18	1	-6	31	21
Korea, Rep.	2,259	2,453	2,500	206	238	33	9	0	25	38
Hong Kong	488	575	600	63	61	12	18	0	35	41
Africa	2,272	2,281	2,300	208	175	27	0	0	13	-0
North Africa	1,659	1,798	1,800	170	143	30	9	0	38	-4
Morocco	193	218	—	6	22	-2	12	—	-73	-11
Algeria	537	549	600	40	34	120	2	20	-11	1
Egypt	788	955	900	113	87	3	21	-10	119	-4
Sub-Saharan	613	483	500	38	32	21	-21	0	-37	25
Nigeria	44	30	—	2	3	-35	-31	—	-55	63
Rep. S. Africa	85	57	—	2	6	74	-34	—	-5	-21
Latin America & Caribbean	4,401	5,442	5,100	530	452	17	24	-6	-7	2
Brazil	178	152	600	14	13	-58	-13	0	150	68
Caribbean Islands	867	1,007	—	93	88	5	16	—	18	5
Central America	414	448	—	30	48	10	8	—	-26	44
Colombia	178	139	—	21	20	55	-22	—	-14	86
Mexico	1,728	2,757	2,400	317	215	42	60	-14	0	3
Peru	174	81	—	17	33	24	-54	—	16	258
Venezuela	597	587	600	21	21	30	-2	-17	-67	-71
Canada	1,973	2,187	2,200	205	163	11	11	0	35	1
Oceania	237	268	300	22	27	3	13	0	-12	-16
Total	35,379	39,651	38,000	3,392	3,654	27	12	-4	3	9
Developed countries	17,905	18,000	17,500	1,689	1,763	19	1	-3	9	1
Less developed countries	14,362	16,436	15,600	1,468	1,433	25	14	-5	1	9
Centrally planned countries	3,111	5,215	4,900	234	458	131	68	-6	-18	58

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. F = forecast. — = not available.
 Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 786-1822.

Farm Income

Table 32.—Farm Income Statistics

	Calendar year										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1990 F
	\$ billion										
1. Farm receipts	142.0	144.1	147.1	141.1	146.8	149.1	140.6	145.3	157.2	164	165 to 170
Crops (incl. net CCC loans)	71.7	72.5	72.3	67.1	69.5	74.3	64.0	63.8	72.8	75	77 to 80
Livestock	68.0	69.2	70.3	69.4	73.0	69.8	71.5	75.7	78.9	83	80 to 83
Farm related 1/	2.3	2.6	4.5	4.5	4.4	5.0	5.1	5.8	5.7	6	5 to 7
2. Direct Government payments	1.3	1.9	3.5	9.3	8.4	7.7	11.8	18.7	14.5	11	8 to 11
Cash payments	1.3	1.9	3.5	4.1	4.0	7.6	8.1	6.8	7.1	10	7 to 9
Value of PIK commodities	0.0	0.0	0.0	5.2	4.5	0.1	3.7	10.1	7.4	1	1 to 2
3. Total gross farm income (4+5+6) 2/	149.3	166.4	163.5	153.1	174.9	168.4	160.4	171.6	177.6	190	185 to 190
4. Gross cash income (1+2)	143.3	146.0	150.6	150.4	155.2	156.9	152.5	162.0	171.6	174	173 to 178
5. Nonmoney income 3/	12.3	13.8	14.3	13.5	13.4	11.8	10.6	10.0	10.3	10	9 to 11
6. Value of inventory change	-6.3	6.5	-1.4	-10.9	6.3	-2.4	-2.7	-0.4	-4.3	5	1 to 3
7. Cash expenses 4/	109.1	113.2	112.8	113.5	118.6	110.2	100.7	107.5	114.4	121	119 to 122
8. Total expenses	133.1	139.4	140.0	140.4	142.7	134.0	122.4	128.0	135.0	141	139 to 142
9. Net cash income (4-7)	34.2	32.8	37.8	38.9	38.6	46.7	51.8	54.5	57.2	53	52 to 57
10. Net farm income (3-8)	16.1	26.9	23.5	12.7	32.2	32.4	38.0	43.8	42.7	48	44 to 49
Deflated (1982\$)	18.8	28.8	23.5	12.2	29.9	29.2	33.4	37.2	35.2	38	34 to 38
11. Off-farm income	34.7	35.8	36.4	37.0	38.9	42.6	44.6	46.8	51.7	54	55 to 59
12. Loan changes 5/:											
Real estate	9.9	9.1	3.8	2.3	-1.1	-8.0	-9.0	-7.5	-4.4	-2	0 to 3
Non-real estate	5.3	6.5	3.4	0.6	-0.8	-9.6	-11.0	-4.6	-0.3	0	-1 to 1
14. Rental income plus monetary change	6.1	6.4	6.3	5.3	8.9	8.8	7.8	6.8	8.5	8	7 to 9
15. Capital expenditures 5/	18.0	16.8	13.3	12.7	12.5	9.2	8.5	9.8	10.2	11	11 to 13
16. Net cash flow (9+12+13+14-15)	37.6	37.8	38.1	32.7	33.1	30.7	31.2	39.4	50.8	48	50 to 58

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisites to hired labor, & farm household expenses. 5/ Excludes farm households. Totals may not add because of rounding. F = forecast. 1987 & 1988 expenses include preliminary revisions from the 1987 Census of Agriculture.

Information contact: Diane Bertelsen (202) 786-1808.

Table 33.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/ 2/										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 F
	\$ billion										
Assets											
Real estate	782.4	784.7	748.8	738.7	637.7	555.9	507.3	577.0	607.9	648	675 to 685
Non-real estate	213.2	212.0	212.2	205.6	209.0	190.5	182.2	167.8	202.5	201	200 to 210
Livestock & poultry	60.6	53.5	53.0	49.7	49.6	46.3	47.8	57.9	65.7	67	66 to 70
Machinery & motor vehicles	93.1	101.4	102.0	100.8	96.9	87.8	80.3	73.9	74.7	78	75 to 79
Crops stored 3/	33.0	29.1	27.7	23.9	29.7	23.6	19.1	20.9	28.2	22	19 to 23
Financial assets	28.5	26.0	29.5	31.3	32.8	33.0	35.2	35.2	35.9	36	36 to 38
Total farm assets	995.6	996.7	961.0	944.3	846.7	746.4	689.5	764.9	810.4	849	880 to 890
Liabilities											
Real estate debt 4/	89.6	98.7	102.5	104.6	103.8	97.6	88.8	81.1	78.7	75	73 to 77
Non-real estate debt 5/	77.1	83.6	87.0	87.9	87.1	77.5	66.6	62.0	61.7	61	60 to 64
Total farm debt	166.8	182.3	189.5	192.7	190.7	175.1	155.1	143.1	138.4	136	134 to 140
Total farm equity	828.9	814.4	771.5	751.6	656.0	571.3	534.4	621.8	672.0	713	740 to 750
	Percent										
Selected ratios											
Debt-to-assets	16.8	18.3	19.7	20.4	22.5	23.5	22.5	18.7	17.1	16	15 to 18
Debt-to-equity	20.1	22.4	24.6	25.8	29.1	30.6	29.0	23.0	20.6	19	18 to 19
Debt-to-net cash income	488	556	497	523	493	375	299	248	231	256	240 to 250

1/ As of Dec. 31. 2/ Estimates of farm assets and equity for 1987-1990 reflect revisions in real estate assets based on the 1987 Census of Agriculture. Revisions in real estate assets for 1983-1986 have not been completed. 3/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 4/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 5/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 786-1798.

Table 34.—Cash Receipts from Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1987	1988	Oct 1989	Nov 1989	1987	1988	Oct 1989	Nov 1989	1987	1988	Oct 1989	Nov 1989
\$ million 2/												
North Atlantic												
Maine	228	216	18	19	184	188	18	24	412	404	36	42
New Hampshire	67	60	5	5	72	77	6	7	139	137	11	12
Vermont	377	352	34	34	45	53	3	12	422	405	37	45
Massachusetts	121	105	8	9	259	207	33	48	379	402	42	57
Rhode Island	13	13	1	1	64	65	4	4	77	78	5	5
Connecticut	191	180	15	16	194	202	16	15	385	382	31	31
New York	1,809	1,781	170	178	900	824	80	68	2,810	2,605	250	244
New Jersey	195	192	18	18	438	450	36	38	633	642	52	55
Pennsylvania	2,310	2,348	220	220	904	935	88	106	3,213	3,284	308	327
North Central												
Ohio	1,616	1,604	163	158	1,862	2,025	368	281	3,478	3,629	531	420
Indiana	1,874	1,749	163	195	1,832	2,367	581	282	3,708	4,117	723	457
Illinois	2,249	2,243	217	238	3,850	4,218	692	349	6,099	6,461	910	587
Michigan	1,282	1,206	114	112	1,311	1,484	195	208	2,594	2,670	310	317
Wisconsin	4,216	4,281	409	425	799	767	115	120	5,015	5,048	523	545
Minnesota	3,561	3,364	339	348	2,270	2,743	416	450	5,831	6,107	755	799
Iowa	5,202	5,045	477	525	3,563	4,029	589	393	8,765	9,074	1,068	918
Missouri	2,102	2,011	213	240	1,588	1,814	291	187	3,687	3,826	504	427
North Dakota	782	649	105	74	1,801	1,574	166	200	2,363	2,423	271	275
South Dakota	1,907	1,965	257	208	820	945	157	92	2,726	2,911	414	298
Nebraska	4,857	5,338	406	547	1,967	2,843	312	281	6,824	7,979	717	828
Kansas	3,919	4,265	391	371	1,893	2,329	226	163	5,862	6,594	617	534
Southern												
Delaware	370	444	36	36	116	149	32	20	487	592	68	55
Maryland	734	768	66	63	405	459	69	61	1,140	1,228	134	124
Virginia	1,275	1,294	180	127	484	592	114	84	1,759	1,886	294	212
West Virginia	174	179	19	17	60	70	5	6	234	248	25	23
North Carolina	2,111	2,179	193	216	1,658	1,994	520	200	3,768	4,173	712	416
South Carolina	450	488	50	47	479	590	87	77	929	1,078	137	123
Georgia	1,825	2,011	170	189	1,299	1,553	420	202	3,124	3,544	580	370
Florida	1,088	1,114	107	105	4,368	4,897	204	243	5,454	5,811	311	348
Kentucky	1,507	1,538	109	272	940	992	88	328	2,448	2,530	197	598
Tennessee	1,110	1,080	112	90	874	965	152	208	1,964	2,046	264	296
Alabama	1,521	1,695	150	133	633	706	185	97	2,154	2,400	335	230
Mississippi	1,042	1,178	110	89	945	1,164	199	265	1,987	2,341	309	354
Arkansas	2,083	2,278	199	183	1,112	1,696	391	339	3,195	3,974	590	622
Louisiana	511	567	53	58	965	1,299	209	283	1,476	1,865	262	341
Oklahoma	2,066	2,284	273	189	811	1,127	90	86	2,877	3,410	363	275
Texas	6,092	6,498	730	592	2,907	3,783	412	395	8,998	10,281	1,142	987
Western												
Montana	747	816	154	118	608	570	64	87	1,355	1,386	218	205
Idaho	924	1,033	102	102	1,184	1,258	252	238	2,089	2,291	354	338
Wyoming	528	575	162	72	127	156	9	40	655	730	171	112
Colorado	2,323	2,655	287	257	885	1,037	127	140	3,207	3,692	424	398
New Mexico	817	910	106	123	351	362	49	54	1,168	1,272	155	177
Arizona	773	793	63	66	987	1,167	99	168	1,760	1,959	163	232
Utah	486	537	73	48	134	150	15	14	600	687	88	62
Nevada	164	150	16	9	69	79	9	10	232	229	25	20
Washington	981	1,141	115	109	1,680	2,146	265	188	2,862	3,287	380	296
Oregon	655	669	72	71	1,236	1,427	183	138	1,890	2,096	255	209
California	4,428	4,704	458	490	11,382	11,894	1,601	1,535	15,808	16,598	2,058	2,025
Alaska	11	10	1	1	19	20	2	2	30	30	3	3
Hawaii	88	89	8	7	473	479	40	39	560	568	48	46
United States	75,717	78,862	7,925	7,791	63,751	72,569	10,264	8,825	139,468	151,431	18,190	16,615

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 786-1804.

Table 35.—Cash Receipts from Farming

	Annual						1988	1989				
	1983	1984	1985	1986	1987	1988	Nov	July	Aug	Sept	Oct	Nov
	\$ million											
Farm marketings & CCC loans ²	138,587	142,439	144,135	135,539	139,468	151,431	15,232	11,662	12,210	14,708	16,190	16,815
Livestock & products	69,438	72,968	69,845	71,534	75,717	78,862	7,180	6,479	6,740	7,084	7,925	7,791
Meat animals	38,893	40,832	38,589	39,122	44,276	45,975	4,103	3,281	3,859	4,050	4,837	4,491
Dairy products	18,763	17,944	18,063	17,753	17,710	17,668	1,522	1,537	1,569	1,568	1,683	1,770
Poultry & eggs	9,981	12,223	11,211	12,661	11,480	12,864	1,242	1,277	1,152	1,259	1,153	1,219
Other	1,801	1,969	1,982	1,897	2,252	2,354	313	383	161	209	152	311
Crops	67,129	69,471	74,290	64,005	63,751	72,569	8,052	5,183	5,470	7,825	10,264	8,826
Food grains	9,713	9,740	8,983	5,638	5,581	7,700	522	1,107	870	779	740	661
Feed crops	15,535	15,668	22,520	17,161	13,102	15,291	1,597	1,232	1,302	1,834	2,258	1,847
Cotton (lint & seed)	3,705	3,674	3,667	3,806	4,087	4,668	873	109	85	468	788	1,115
Tobacco	2,752	2,813	2,722	1,818	1,827	2,039	308	19	510	529	432	375
Oil-bearing crops	13,548	13,641	12,474	10,671	11,159	13,699	1,644	428	419	1,120	2,982	1,713
Vegetables & melons	8,459	9,138	8,558	8,828	9,718	9,819	551	754	1,027	1,208	1,133	608
Fruits & tree nuts	6,056	6,733	6,957	7,248	8,257	8,877	1,110	617	648	970	1,035	1,053
Other	7,365	8,065	8,381	8,041	10,020	10,476	1,445	617	609	921	897	1,453
Government payments	9,295	8,430	7,704	11,813	18,747	14,480	513	238	95	220	957	924
Total	145,882	150,869	151,839	147,352	156,215	165,911	15,745	11,900	12,305	14,928	19,147	17,639

² Receipts from loans represent value of commodities placed under CCC loans minus value of red. mptions during the month.

Information contact: Roger Strickland (202) 788-1804.

Table 36.—Farm Production Expenses

	Calendar year										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1990 F
	\$ million										
Feed	20,971	20,855	18,592	21,725	19,852	18,015	18,179	18,898	22,462	24,000	18,000 to 22,000
Livestock	10,670	8,999	9,684	8,814	9,498	8,958	9,744	11,845	12,812	13,000	12,000 to 15,000
Seed	3,220	3,428	3,172	2,993	3,448	3,350	2,984	3,009	3,138	4,000	3,000 to 5,000
Farm-origin inputs	34,861	33,282	31,448	33,532	32,798	30,323	28,907	33,752	38,412	41,000	36,000 to 40,000
Fertilizer	9,491	9,409	8,018	7,067	7,429	7,258	5,787	6,210	7,000	8,000	7,000 to 9,000
Fuels & oil	7,879	8,570	7,888	7,503	7,143	6,584	4,790	5,042	5,144	6,000	5,000 to 7,000
Electricity	1,526	1,747	2,041	2,146	2,166	2,150	1,942	2,393	2,572	3,000	2,000 to 3,000
Pesticides	3,539	4,201	4,282	4,154	4,767	4,994	4,484	4,588	4,716	5,000	5,000 to 6,000
Manufactured inputs	22,435	23,927	22,229	20,870	21,505	20,986	17,003	18,233	19,432	22,000	21,000 to 25,000
Short-term interest	8,717	10,722	11,349	10,615	10,396	8,921	7,795	7,305	7,287	8,000	7,000 to 9,000
Real estate interest 1/	7,544	9,142	10,481	10,815	10,733	9,878	9,131	8,187	7,885	7,000	6,000 to 8,000
Total interest charges	16,261	19,864	21,830	21,430	21,129	18,699	16,926	15,492	15,172	15,000	14,000 to 16,000
Repair & maintenance 1/ 2/	7,075	7,021	6,428	6,529	6,418	6,370	6,428	6,548	6,858	7,000	7,000 to 8,000
Contract & hired labor	9,293	8,931	10,075	9,725	9,729	9,799	9,890	10,821	11,202	11,000	11,000 to 12,000
Machine hire & custom work	1,823	1,984	2,025	1,896	2,170	2,184	1,810	1,958	2,171	2,000	2,000 to 3,000
Marketing, storage, & transportation	3,070	3,523	4,301	3,904	4,012	4,127	3,652	3,823	3,279	4,000	4,000 to 5,000
Misc. operating expenses 1/	6,881	6,909	7,262	9,089	9,106	8,232	7,993	8,308	8,809	9,000	8,000 to 10,000
Other operating expenses	28,142	28,368	30,089	31,143	31,433	30,712	29,771	31,452	32,319	34,000	33,000 to 37,000
Capital consumption 1/	21,474	23,573	24,287	23,873	23,105	20,847	18,918	17,664	17,722	18,000	17,000 to 19,000
Taxes 1/	3,891	4,246	4,036	4,469	4,059	4,231	4,125	4,345	4,378	4,000	4,000 to 5,000
Net rent to nonoperator landlord	6,075	6,184	6,059	5,080	6,640	8,158	6,737	7,060	7,527	8,000	8,000 to 9,000
Other overhead expenses	31,440	34,003	34,381	33,402	35,804	33,238	29,780	29,069	29,627	30,000	30,000 to 33,000
Total production expenses	133,139	139,444	139,980	140,377	142,669	133,956	122,387	127,998	134,963	141,000	139,000 to 142,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases & dairy assessments. Totals may not add because of rounding. F = forecast. 1987 and 1988 expenses include preliminary revisions from the Census of Agriculture.

Information contacts: Chris McGath (202) 788-1804, Diane Bertelsen (202) 788-1808.

Table 37.—CCC Net Outlays by Commodity & Function

COMMODITY/PROGRAM	Fiscal year										
	1981	1982	1983	1984	1985	1986	1987	1988	1989 E	1990 E	1991 E
	\$ million										
Feed grains	-533	5,397	6,815	-758	5,211	12,211	13,967	9,053	3,384	4,270	6,099
Wheat	1,543	2,238	3,419	2,536	4,691	3,440	2,838	678	53	522	2,061
Rice	24	164	664	333	990	947	908	128	631	818	673
Upland cotton	336	1,190	1,363	244	1,553	2,142	1,786	666	1,461	-242	710
Tobacco	-51	103	880	346	455	253	-346	-453	-367	-307	-138
Dairy	1,894	2,182	2,528	1,502	2,085	2,337	1,166	1,295	679	483	617
Soybeans	87	169	288	-585	711	1,597	-478	-1,676	-86	236	62
Peanuts	28	12	-6	1	12	32	8	7	13	-6	3
Sugar	-121	-5	49	10	184	214	-65	-246	-25	0	0
Honey	8	27	48	90	81	89	73	100	42	69	44
Wool	42	54	94	132	109	123	152	1/ 5	93	121	120
Operating expense 2/	159	294	328	362	346	457	535	614	620	626	633
Interest expenditure	220	-13	3,525	1,064	1,435	1,411	1,219	395	65	609	262
Export programs 4/	-940	65	398	743	134	102	276	200	-102	102	67
1989/89 Disaster/											
Livestock Assistance	0	0	0	0	0	0	0	0	3,919	2/ 96	0
Other	1,340	-225	-1,542	1,295	-314	486	371	1,695	143	979	536
Total	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	10,523	8,174	11,739
FUNCTION											
Price-support loans (net)	174	7,015	8,438	-27	6,272	13,628	12,199	4,579	-926	431	704
Direct payments											
Deficiency	0	1,185	2,780	612	6,302	6,166	4,833	3,971	5,798	4,520	8,445
Diversion	0	0	705	1,504	1,525	64	382	8	-1	0	0
Dairy termination	0	0	0	0	0	489	587	260	168	178	106
Other	0	0	0	0	0	27	60	0	42	4	6
Disaster	1,030	306	115	1	0	0	0	6	4	0	0
Total direct payments	1,030	1,491	3,600	2,117	7,827	6,746	5,862	4,245	6,011	4,702	8,557
1988/89 crop disaster	0	0	0	0	0	0	0	0	3,388	2/ 6	0
Emergency livestock/											
forage assistance	329	16	0	0	0	0	0	31	533	90	0
Purchases (net)	1,602	2,031	2,540	1,470	1,331	1,870	-479	-1,131	116	-87	238
Producer storage											
payments	32	679	964	268	329	485	832	658	174	127	70
Processing, storage,											
& transportation	323	355	665	639	657	1,013	1,659	1,113	659	485	490
Operating expense 3/	159	294	328	362	346	457	535	614	620	626	633
Interest expenditure	220	-13	3,525	1,064	1,435	1,411	1,219	395	65	609	262
Export programs 4/	-940	65	398	743	134	102	276	200	-102	102	67
Other	1,107	-281	-1,607	679	-648	329	305	1,757	-13	1,103	718
Total	4,036	11,652	18,851	7,315	17,683	25,841	22,408	12,461	10,523	8,174	11,739

1/ Fiscal 1988 wool & mohair program outlays were \$130,635,000 but include a one-time advance appropriation of \$126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Benefits to farmers under the Disaster Assistance Act of 1989 are being paid in generic certificates & are not recorded directly as disaster assistance outlays. 3/ Does not include CCC Transfers to General Sales Manager. 4/ Includes Export Guarantee Program, Direct Export Credit Program, & CCC Transfers to the General Sales Manager. E = Estimated in the fiscal 1991 President's Budget. Minus (-) indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Information contact: Richard Pazdalski (202) 447-5148.

Food Expenditures

Table 38.—Food Expenditure Estimates

	Annual			1989			1989 year-to-date		
	1986	1987	1988	Oct	Nov P	Dec P	Oct	Nov P	Dec P
	\$ billion								
Sales 1/									
Off-premise use 2/	237.1	245.5	257.8	22.7	23.0	25.5	227.1	250.1	275.6
Meals & snacks 3/	158.5	174.8	187.4	16.6	15.9	16.6	163.6	179.5	196.1
	1988 \$ billion								
Sales 1/									
Off-premise use 2/	257.7	255.9	257.8	21.1	21.3	23.5	213.7	235.1	258.6
Meals & snacks 3/	171.6	181.9	187.4	15.7	14.9	15.6	157.0	171.9	187.5
	Percent change from year earlier (\$ bil.)								
Sales 1/									
Off-premise use 2/	3.3	3.6	5.0	4.5	6.7	6.4	7.0	7.0	6.9
Meals & snacks 3/	6.9	10.2	7.2	2.0	3.0	1.1	5.2	5.0	4.7
	Percent change from year earlier (1988 \$ bil.)								
Sales 1/									
Off-premise use 2/	0.4	-0.7	0.7	-0.8	0.7	0.2	0.3	0.3	0.3
Meals & snacks 3/	2.9	6.0	3.0	-2.5	-1.6	-3.3	0.6	0.4	0.1

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations & home production. 3/ Excludes donations, child nutrition subsidies, & meals furnished to employees, patients, & inmates. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food, not alcoholic beverages & pet food, which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced & consumed on farms & food furnished to employees; (4) this series includes all sales of meals & snacks. PCE includes only purchases using personal funds, excluding business travel & entertainment. For a more complete discussion of the differences, see "Developing an Integrated Information System for the Food Sector," Agr.-Econ. Rpt. No. 575, Aug. 1987.

Information contact: Alden Manchester (202) 786-1880

Transportation

Table 39.—Rail Rates; Grain & Fruit/Vegetable Shipments

	Annual			1988	1989					
	1987	1988	1989	Dec	July	Aug	Sept	Oct	Nov	Dec
Rail freight rate index 1/ (Dec. 1984=100)										
All products	100.1	104.8	106.4	105.4	106.9	106.8	106.7 P	106.7 P	106.9 P	106.9 P
Farm products	99.3	105.6	108.4	108.0	108.2	108.2	108.2 P	108.2 P	108.4 P	108.5 P
Grain	98.7	105.4	108.7	108.2	108.4	108.4	108.4 P	108.4 P	108.7 P	108.7 P
Food products	98.6	103.2	103.9	103.6	104.2	104.1	104.1 P	104.1 P	104.1 P	104.3 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	29.0	30.7	28.4	27.1	25.0 P	25.9 P	24.4 P	28.9 P	31.7 P	29.4 P
Fresh fruit & vegetable shipments										
Piggy back (1,000 cwt) 3/ 4/	588	535	504	441	603	454	462	406	440	459
Rail (1,000 cwt) 3/ 4/	630	607	588	873	521	215	415	472	584	725
Truck (1,000 cwt) 3/ 4/	9137	9,679	9,667	9,528	9,762	8,863	8,281	9,040	9,425	9,278
Cost of operating trucks hauling produce 5/										
Owner operator (cts./mile)	116.3	118.7	124.1	120.4	123.4	123.4	124.3	125.5	126.2	128.9
Fleet operation (cts./mile)	116.5	118.4	123.4	120.1	122.9	122.6	123.4	124.6	125.5	128.7

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1988 & 1989. 5/ Office of Transportation, USDA. P = preliminary.

Information contact: T.Q. Hutchinson (202) 786-1840.

Indicators of Farm Productivity

Table 40.—Indexes of Farm Production, Input Use, & Productivity¹

	1980	1981	1982	1983	1984	1985	1986	1987	1988 2/	1989 2/
	1977=100									
Farm output	104	118	116	96	112	118	111	110	102	111
All livestock products 3/	108	109	107	109	107	110	110	113	116	116
Meat animals	107	106	101	104	101	102	100	102	104	103
Dairy products	105	108	110	114	110	117	116	116	118	118
Poultry & eggs	115	119	119	120	123	128	133	144	150	156
All crops 4/	101	117	117	88	111	118	109	108	92	103
Feed grains	97	121	122	87	116	134	123	105	73	108
Hay & forage	98	106	109	100	107	106	106	103	90	100
Food grains	121	144	138	117	129	121	106	107	98	107
Sugar crops	97	107	96	93	95	97	106	112	107	106
Cotton	79	109	85	55	91	94	69	103	108	85
Tobacco	93	108	104	75	90	81	63	62	71	74
Oil crops	99	114	121	91	106	117	110	107	88	107
Cropland used for crops	101	102	101	88	99	98	94	88	87	90
Crop production per acre	100	115	116	100	112	120	116	122	106	114
Farm input 5/	103	102	99	97	95	92	87	86	85	—
Farm real estate	103	104	102	101	97	95	93	92	91	—
Mechanical power & machinery	101	98	92	88	84	90	75	72	71	—
Agricultural chemicals	123	129	118	105	121	123	110	111	113	—
Feed, seed, & livestock purchases	114	108	108	110	106	106	103	111	107	—
Farm output per unit of input	101	116	117	99	119	128	127	128	120	—
Output per hour of labor										
Farm 6/	109	123	125	99	121	139	139	142	134	—
Nonfarm 7/	99	100	99	102	105	106	108	109	111	—

1/ For historical data & indexes, see Economic Indicators of the Farm Sector: Production & Efficiency Statistics, 1988, ECIFS 5-8. 2/ Preliminary indexes for 1988 based on Crop Production: 1988 Summary, released in January 1989, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. — = not available.

Information contact: Jim Hauver (202) 786-1459.

Food Supply and Use

Table 41.—Per Capita Consumption of Major Food Commodities¹

(See the January–February 1990 issue.)

Information contact: Judy Putnam (202) 786-1870.

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